

CONFIDENTIAL TIGHT HOLE  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL WELL ☐

GAS WELL ☐

OTHER

Coalbed Methane

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR 214/750-3800 6688 N. Central Expressway, #1000

PG & E Resources Company Dallas, TX 75206

3. ADDRESS OF OPERATOR 303/452-8888 13585 Jackson Drive

Permitco Inc. - Agent Denver, CO 80241

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface

1124' FSL and 964' FEL

SE SE Sec. 14

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

15 miles north of Price, Utah

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

1124'

16. NO. OF ACRES IN LEASE

2560

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

approx. 2600'

19. PROPOSED DEPTH

4360'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

7651' GR

22. APPROX. DATE WORK WILL START\*

Immediately upon approval  
of this application.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	500'	350 sx or suffic to circ to surf.
7-7/8"	5-1/2"	17#	4360'	405 sx or suffic to cover zones of interest.

PG & E Resources Company proposes to drill a well to 4360' to test the Blackhawk and Star Point Coals for coalbed methane. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

See Onshore Order No. 1 attached.

Please be advised that PG & E Resources Company is considered to be the Operator of the above mentioned well. PG & E Resources Company agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the leased lands.

Bond coverage for this well is provided by Bond No. U-187011. The principal is PG & E Resources Company via surety consent as provided for in 43 CFR 3104.2.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE Consultant for PG & E Resources Company DATE 8/25/92

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

(Other instructions on  
reverse side)

5. Lease Designation and Serial No.

UTU-65949

6. If Indian, Allottee or Tribe Name

N/A

7. Unit Agreement Name

N/A

8. Farm or Lease Name

Federal

9. Well No.

#16-14

10. Field and Pool, or Wildcat

11. Sec., T., R., M., or Blk.  
and Survey or Area

Sec. 14, T12S - R10E

12. County or Parrish 13. State

Carbon Utah

# APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. Type of Well

Oil Well ☐

Gas Well ☐

Other

Coalbed Methane

Single Zone ☒

Multiple Zone ☐

2. Name of Operator 214/750-3800

6688 N. Central Expressway, #1000

PG & E Resources Company

Dallas, TX 75206

3. Address of Operator 303/452-8888

13585 Jackson Drive

Permitco Inc. - Agent

Denver, CO 80241

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface

1124' FSL and 964' FEL

At proposed prod. zone

SE SE Sec. 14

AUG 27 1992

14. Distance in miles and direction from nearest town or post office\*

15 miles north of Price, Utah

15. Distance from proposed\*

location to nearest

property or lease line, ft.

(Also to nearest drlg. line, if any)

1124'

16. No. of acres in lease

2560

17. No. of acres assigned to this well

160

18. Distance from proposed location\* to nearest well, drilling, completed, or applied for, on this lease, ft.

approx. 2600'

19. Proposed depth

4360'

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

7651' GR

22. Approx. date work will start\*

Immediately upon approval of this application.

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8"	24#	500'	350 sx or suffic to circ to surf.
7-7/8"	5-1/2"	17#	4360'	405 sx or suffic to cover zones of interest.

PG & E Resources Company proposes to drill a well to 4360' to test the Blackhawk and Starpoint Coals for coalbed methane. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

See Onshore Order No. 1 attached.

Bond coverage for this well is provided under Bond No. 8063-38-07 and 8057-26-00.

This location was staked at non-standard footages due to topography. PG & E Resources Company is the lease holder of all lands within a 1/4 mile radius of the proposed location. Therefore, we request administrative approval to an exception to spacing for this well.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed

*John G. Smith*

Title

Consultant for

PG & E Resources Company

Date

8/25/92

(This space for Federal or State office use)

Permit No.

43-007-30174

Approval Date

Approved by

Title

Conditions of approval, if any:

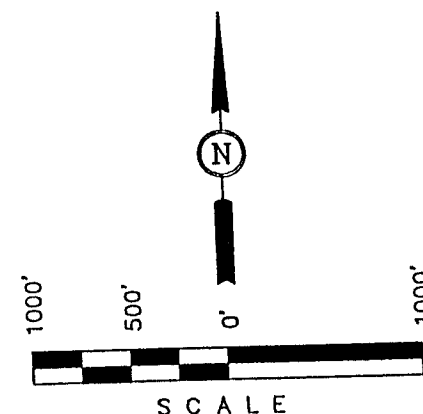
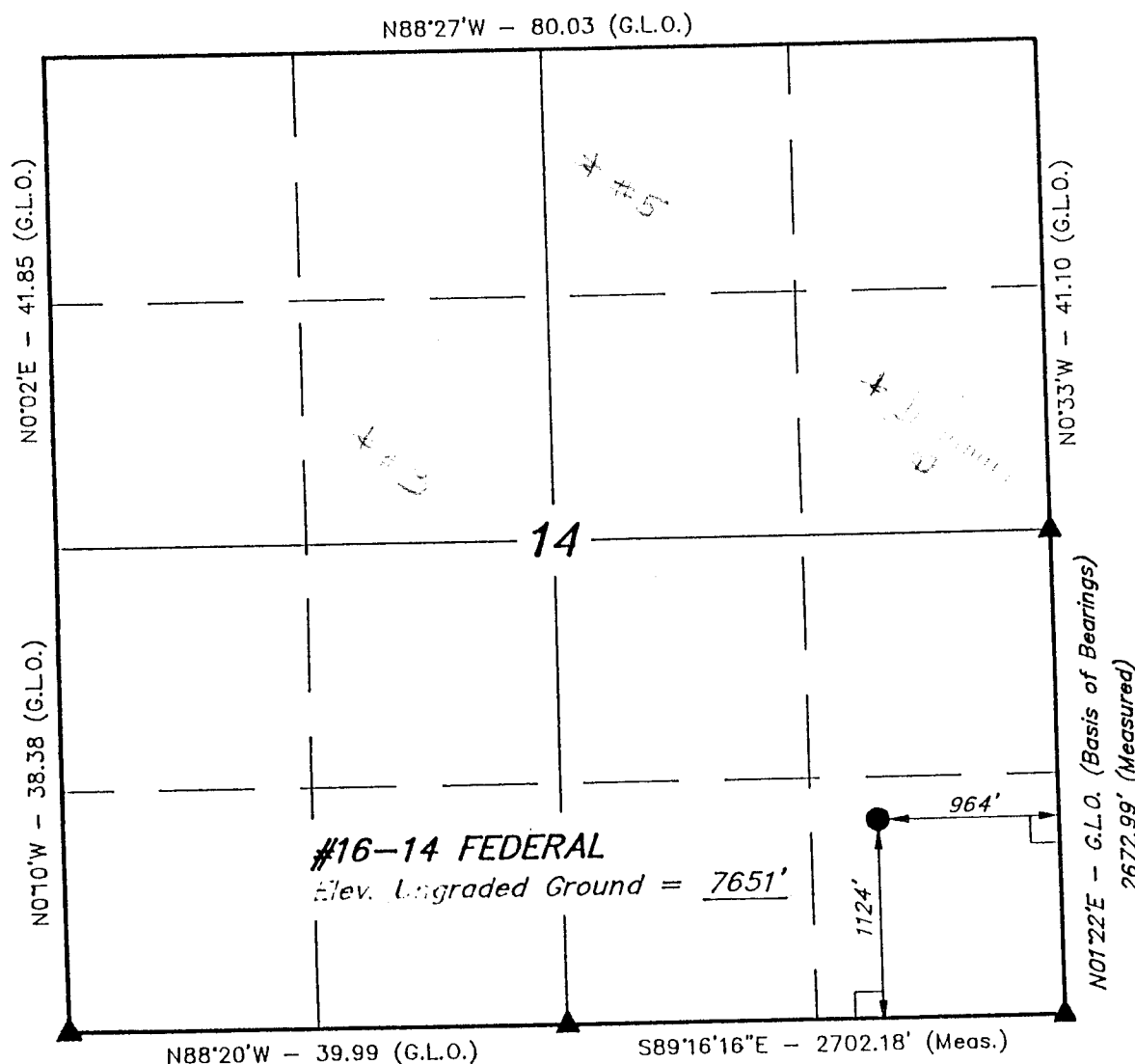
**T12S, R10E, S.L.B.&M.**

**PG&E RESOURCES COMPANY**

Well location, #16-14 FEDERAL, located as shown in the SE 1/4 SE 1/4 of Section 14, T12S, R10E, S.L.B.&M. Carbon County, Utah.

**BASIS OF ELEVATION**

SPOT ELEVATION AT A RIDGE TOP LOCATED IN THE NW 1/4 OF SECTION 23, T12S, R10E, S.L.B.&M. TAKEN FROM THE MATTS SUMMIT QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 8003 FEET.

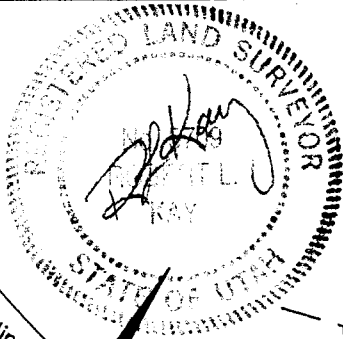


**CERTIFICATE**  
 THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 5709  
 STATE OF UTAH

<b>UINTAH ENGINEERING &amp; LAND SURVEYING</b> <b>85 SOUTH 200 EAST - VERNAL, UTAH 84078</b> <b>(801) 789-1017</b>		
SCALE 1" = 1000'	DATE SURVEYED: 7-20-92	DATE DRAWN: 7-23-92
PARTY G.S. R.A. J.L.G.	REFERENCES G.L.O. PLAT	
WEATHER HOT	FILE PG&E RESOURCES	

**LEGEND:**

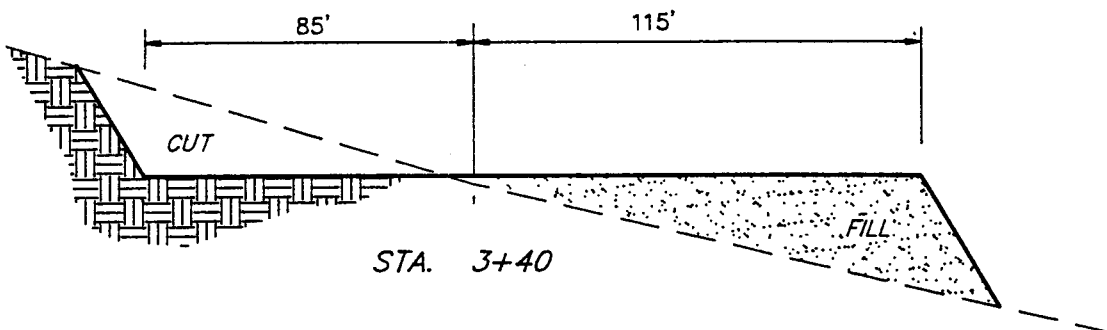
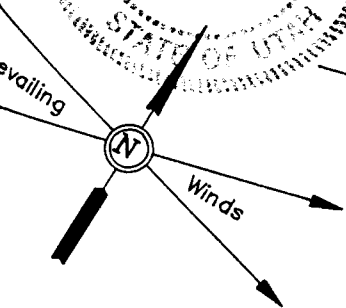
- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED. (Brass Caps)



P.G.&E. RESOURCES CO.

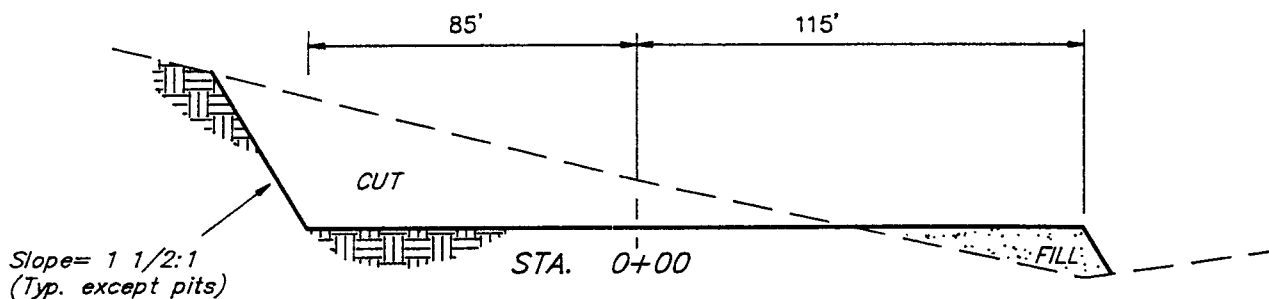
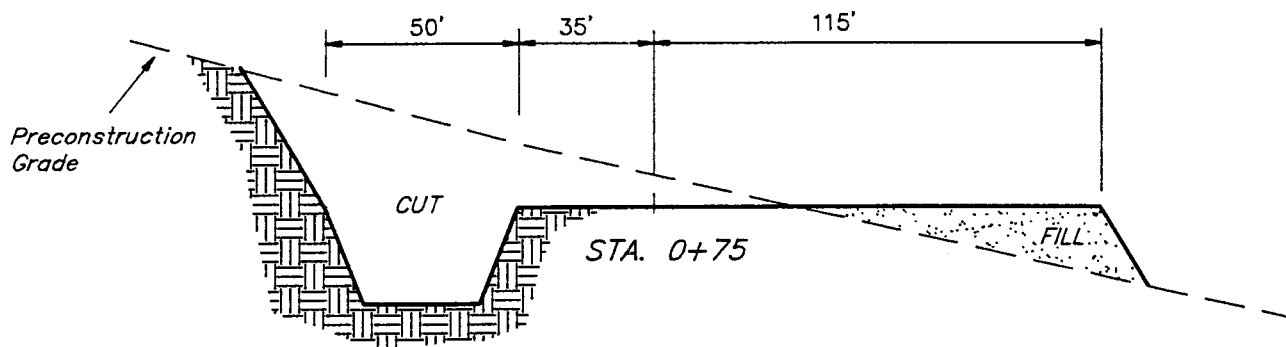
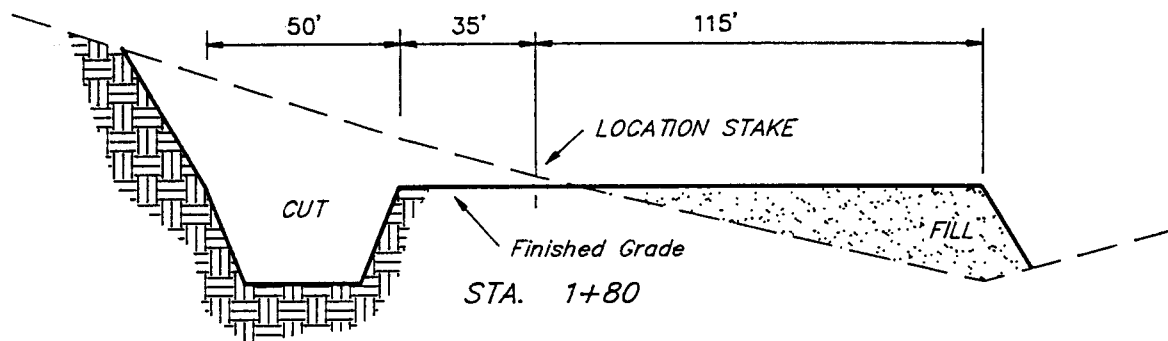
LOCATION LAYOUT FOR

#16-14 FEDERAL  
SECTION 14, T12S, R10E, S.L.B.&M.  
1124' FSL 964' FEL



SCALE: 1" = 50'  
DATE: 7-21-92  
Drawn By: R.E.H.

1" = 20'  
X-Section  
Scale  
1" = 50'



TYP. LOCATION LAYOUT  
TYP. CROSS SECTIONS

UNGRADED GROUND AT LOC. STAKE = 7651.2'  
GRADED GROUND AT LOC. STAKE = 7650.0'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East Vernal, Utah



**CONFIDENTIAL - TIGHT HOLE**

**ONSHORE OIL & GAS ORDER NO. 1**

**Approval of Operations on Onshore  
Federal and Indian Oil & Gas Leases**

**#16-14 Federal  
1124' FSL and 964' FEL  
SE SE Sec. 14, T12S - R10E  
Carbon County, Utah**

**Prepared For:**

**P G & E RESOURCES COMPANY**

**By:**

**PERMITCO INC.  
13585 Jackson Drive  
Denver, Colorado 80241  
303/452-8888**

**Copies Sent To:**


- 3 - BLM - Moab, Utah**
- 1 - BLM - Price, UT**
- 1 - Utah Division of Oil, Gas & Mining - SLC, UT**
- 3 - PG & E Resources - Dallas, TX**
- 1 - PG & E Resources - Vernal, Utah**



June 1, 1992

Bureau of Land Management

RE: Designation of Agent Authority

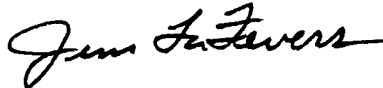
 Gentlemen:

Please be advised that Permitco, Inc. is hereby delegated authority to act as Agent on behalf of PG&E Resources Company and is authorized to execute any County, State and Federal permit applications and other related regulatory documents.

This authority is to remain in effect until further notification.

Should you have any questions regarding this issue, please contact the undersigned.

Sincerely,



Jim LaFevers  
Regulatory Affairs Supervisor

JL\ap

wp51\jl\design.agt

**TABLE OF CONTENTS**  
**#16-14 Federal**

**DRILLING PROGRAM**

**Page No.**

1.	Formation Tops	1
2.	Anticipated Depth of Oil, Gas & Water	1-2
3.	Blow Out Preventor Requirements	2-4
4.	Casing and Cement Program	4-7
5.	Mud Program	7-8
6.	Testing, Logging and Coring	8-9
7.	Abnormal Pressures & H <sub>2</sub> S Gas	9
8.	Other Information & Notification Requirements	9-11

**SURFACE USE PLAN**

1.	Existing Roads	1
2.	Access Roads to be Constructed or Reconstructed	1-2
3.	Location of Wells Within 1-Mile	2
4.	Proposed Production Facilities	2-4
5.	Water Supply	4
6.	Construction Materials	4
7.	Waste Disposal	5
8.	Ancillary Facilities	6
9.	Wellsite Layout	6
10.	Reclamation	6-7
11.	Surface/Mineral Ownership	7
12.	Other Information	7-9
13.	Certification	9-10





ONSHORE ORDER NO. 1  
PG & E Resources Company  
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SE SE Sec. 14 T12S - R10E  
Carbon County, Utah

CONFIDENTIAL - TIGHT HOLE

DRILLING PROGRAM  
Page 1

ONSHORE OIL & GAS ORDER NO. 1  
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Federal and Indian Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Subsea</u>
Flagstaff	Surface	
Price River	2395'	+5290'
Castlegate	2861'	+4824'
Blackhawk	3134'	+4551'
Kenilworth (S.P. I)	3848'	+3837'
Aberdeen (S.P. II)	4060'	+3625'
T.D.	4360'	

2. The estimated depths at which the top and bottom of the anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Coal Gas	Blackhawk	3134'
Coal Gas	Star Point	3848-4060'

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Moab, Utah. Copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, samples will be submitted to the BLM along with any water analyses conducted.

3. PG & E's minimum specifications for pressure control equipment are as follows:

Ram Type: 10" Hydraulic double, 2000 psi w.p.

Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. If a test plug is utilized, no bleed-off pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10 percent in 30 minutes occurs, the test shall be considered to have failed. Valve on casing head below test plug shall be open during test of BOP stack.

Annular type preventers (if used) shall be tested to 50 percent of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.

As a minimum, the above test shall be performed:

- a. when initially installed;
- b. whenever any seal subject to test pressure is broken
- c. following related repairs; and
- d. at 30-day intervals

Valves shall be tested from working pressure side during BOPE tests with all down stream valves open.

When testing the kill line valve(s) the check valve shall be held open or the ball removed.

Annular preventers (if used) shall be functionally operated at least weekly.

Pipe and blind rams shall be activated each trip, however, this function need not be performed more than once a day.

A BOPE pit level drill shall be conducted weekly for each drilling crew.

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Pressure tests shall apply to all related well control equipment.

All of the above described tests and/or drills shall be recorded in the drilling log. Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request. Pressure tests shall apply to all related well control equipment.

BOP systems shall be consistent with API RP53. Pressure tests will be conducted before drilling out from under casing strings which have been set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

The Price River Resource Area Office shall be notified, at least 24 hours prior to initiating the pressure test, in order to have a BLM representative on location during pressure testing.

- a. The size and rating of the BOP stack is shown on the attached diagram. Although a rig has not been chosen to drill this well, most of the equipment for this depth of hole in the area use a 11", 2000 psi working pressure blowout preventor.
- b. A choke line and a kill line are to be properly installed. The kill line is not to be used as a fill-up line.

DRILLING PROGRAM

Page 4

- c. The accumulator system shall have a pressure capacity to provide for repeated operation of hydraulic preventers.
  - d. Drill string safety valve(s), to fit all tools in the drill string, are to be maintained on the rig floor while drilling operations are in progress.
4. a. The Price River Resource Area Office shall be notified at least 24 hours prior to the running and cementing of all casing strings, in order to have a BLM representative on location while running and cementing all casing strings.
- b. The proposed casing and cementing program shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. Determination of casing setting depth shall be based on all relevant factors, including; presence/absence of hydrocarbons; fracture gradients; usable water zones; formation pressures; lost circulation zones; other minerals; or other unusual characteristics. All indications of usable water shall be reported.
- c. Casing design shall assume formation pressure gradients of 0.44 to 0.50 psi per foot for exploratory wells (lacking better data).
- d. Casing design shall assume fracture gradients from 0.70 to 1.00 psi per foot for exploratory wells (lacking better data)
- e. Casing collars shall have a minimum clearance of 0.422 inches of all sides in the hole/casing annulus, with recognition that variances can be granted for justified exceptions.
- f. All waiting on cement times shall be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

- g. All casing except the conductor casing, shall be new or reconditioned and tested used casing that meets or exceeds API standards for new casing.
- h. The surface casing shall be cemented back to surface either during the primary cement job or by remedial cementing.
- i. All indications of usable water shall be reported to the authorized officer prior to running the next string of casing or before plugging orders are requested, whichever occurs first.
- j. Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.
- k. Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a suitable preflush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.
- l. All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or 1500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.
- m. On all exploratory wells, and on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

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**CONFIDENTIAL - TIGHT HOLE**

**DRILLING PROGRAM**

Page 6

- n. The proposed casing program will be as follows:

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	<u>New or Used</u>
Surface	0-500'	12-1/4"	8-5/8"	24#	K-55	ST&C	New
Produc.	0-4360'	7-7/8"	5-1/2"	17#	N-80	LT&C	New

- o. Casing design subject to revision based on geologic conditions encountered.

- p. The cement program will be as follows:

Surface  
0-500'

**Type and Amount**

Cement to surface with 350 sx  
Premium Cement + 2% CaCl<sub>2</sub> + 0.25  
lb/sk Flocele (or equivalent).

Production

**Type and Amount**

Two stage cement to surface with  
stage tool at 3200'. First Stage: 205  
sx 50/50 Pozmix + 2% Gel + 0.25 %  
Flocele. Second Stage: 200 sx Silica  
Lite + 4% Gel + 4% CaCl<sub>2</sub>.

- q. The Price River Resource Area Office should be notified, with sufficient lead time, in order to have a BLM representative on location while running all casing strings and cementing.
- r. After cementing but before commencing any test, the casing string shall stand cemented until the cement has reached a compressive strength of at least 500 psi at the shoe. WOC time shall be recorded in the driller's log.
- s. The following reports shall be filed with the District Manager within 30 days after the work is completed.

1. Progress reports, Form 3160-5 (formerly 9-331) "Sundry Notices and Reports on Wells", must include complete information concerning:
  - a. Setting of each string of casing, showing the size, grade, weight of casing set, hole size, setting depth, amounts and type of cement used, whether cement circulated or the top of the cement behind the casing, depth of cementing tools used, casing test method and results, and the date work was done. Show the spud date on the first reports submitted.
  - b. Temperature or bond logs must be submitted for each well where the casing cement was not circulated to the surface.
- t. Auxiliary equipment to be used is as follows:
  1. Kelly cock
  2. No bit float is deemed necessary.
  3. A sub with a full opening valve.
5. a. The proposed circulating mediums to be employed in drilling are as follows:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>F/L</u>	<u>PH</u>
0-500'	Air/Spud Mud	8.4-9.0	32-50	N/C	8.0-9.0
500-3300'	FW/Gel Sweeps	8.4-8.8	28-32	N/C	8.0-9.0
3300-4360'	FW-LSND	8.6-9.0	34-45	10-15	8.0-9.0

There will be sufficient mud on location to control a blowout should one occur.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, static filtration loss, and Ph.

b. Mud monitoring equipment to be used is as follows:

1. Periodic checks will be made each tour of the mud system. The mud level will be checked visually.

c. Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing or completion operations.

6. The anticipated type and amount of testing, logging and coring are as follows:

a. No drill stem tests are anticipated, however, if DST's are run, the following requirements will be adhered to:

Initial opening of drill stem test tools shall be restricted to daylight hours unless specific approval to start during other hours is obtained from the authorized officer. However, DST's may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e. lighting which is adequate for visibility and vapor-proof for safe operations). Packers can be released, but tripping shall not begin before daylight, unless prior approval is obtained from the authorized officer. Closed chamber DSTs may be accomplished day or night.

A DST that flows to the surface with evidence of hydrocarbons shall be either reversed out of the testing string under controlled surface conditions. This would involve provided some means for reverse circulation.

Separation equipment required for the anticipated recovery shall be properly installed before a test starts.

All engines within 100 feet of the wellbore that are required to "run" during the test shall have spark arresters or water cooled exhausts.

b. The logging program will consist of a Cased Hole Dual Spaced Neutron w/Gamma Ray, 2" & 5" from T.D. to base of surface casing. An Acoustic CBL/CCL will be run (5") from T.D. to base of surface casing.

c. No cores are anticipated.



- d. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the authorized officer (AO).
  - e. The anticipated completion program is as follows:  
  
Perforate and fractures zones of interest and place on pump.
7. a. The expected bottom hole pressure is 1892 psi. No abnormal pressures or temperatures are anticipated.
- b. No hydrogen sulfide gas is anticipated.
8. a. Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communications, not later than 5 days following the date on which the well is placed on production.
- b. Production data shall be reported to the MMS pursuant to 30 CFR 216.5 using form MMS/3160.
- c. The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or the date on which gas is first measured through permanent metering facilities, whichever first occurs.

- d. Pursuant to NTL-4A, lessees or operators are authorized to vent/flare gas during initial well evaluation tests, not exceeding a period of 30 days or the production of 50 MMCF of gas, whichever occurs first. An application must be filed with the District Engineer and approval received, for any venting/flaring of gas beyond the initial 30 day or authorized test period.
- e. Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.
- f. A schematic facilities diagram as required by 43 CFR 3162.7-2, 3162.7-3 and 3162.7-4 shall be submitted to the appropriate District Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in 43 CFR 3162.7 and Onshore Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-4.
- g. Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

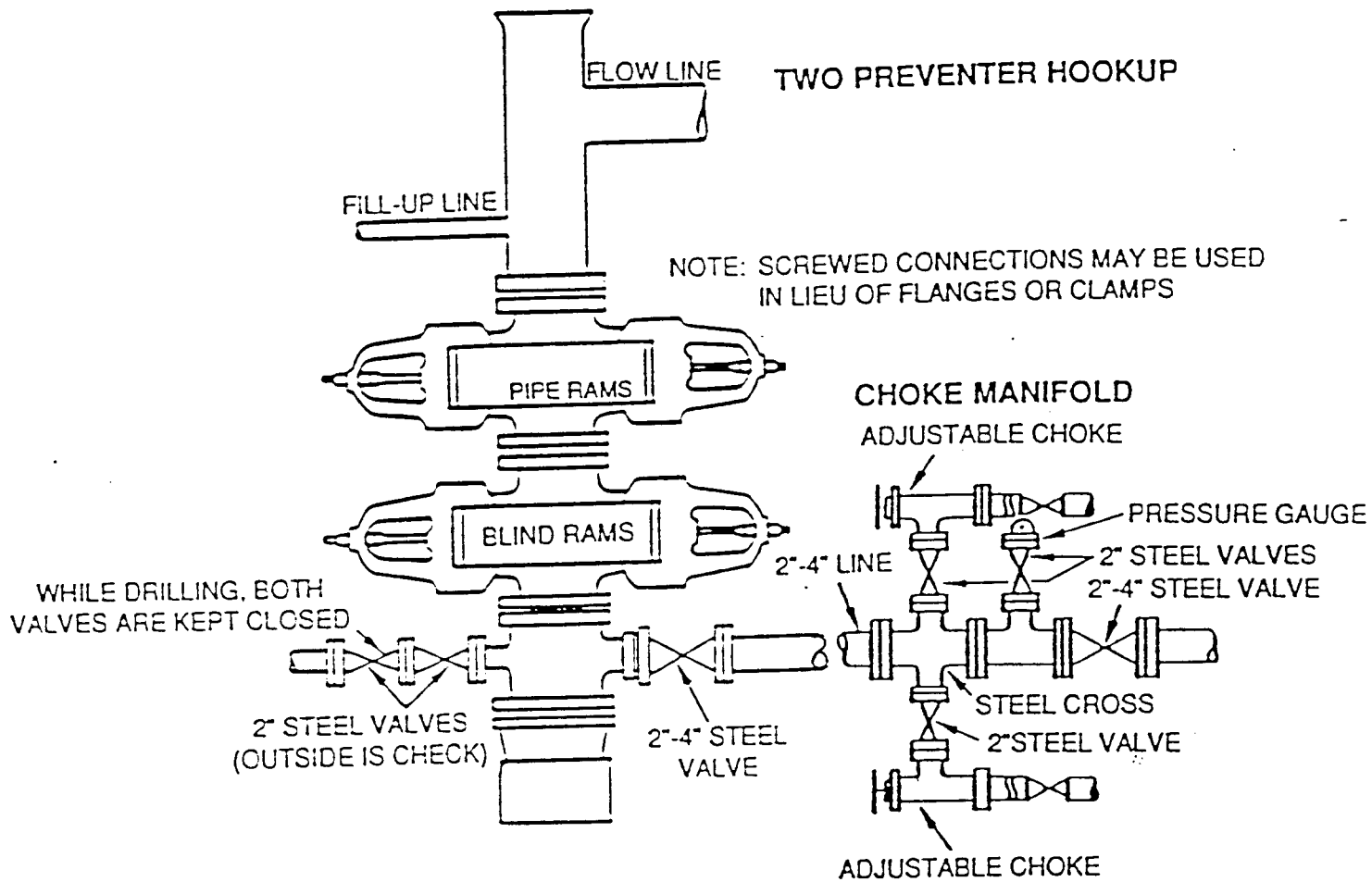
If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).



- h. Drilling will commence immediately upon approval of this application.
- i. It is anticipated that the drilling of this well will take approximately 16 days.
- j. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.
- k. Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.
- l. If a replacement rig is contemplated for completion operations, a "Sundry Notice" Form 3160-5 to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.
- m. Pursuant to NTL-2B, with the approval of the District Engineer, produced water may be temporarily disposed of into unlined pits for a period of up to 90 days. During the period so authorized, an application for approval of the permanent disposal method, along with the required water analysis and other information, must be submitted to the District Engineer.
- n. No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the SO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative. or the appropriate Surface Managing Agency.

# PG&E RESOURCES COMPANY

## TYPICAL 2,000 PSI BLOWOUT PREVENTER SCHEMATIC



ONSHORE OIL & GAS ORDER NO. 1

Thirteen Point Surface Use Plan

1. Existing Roads

- a. The proposed well site is located approximately 15 miles north of Price, Utah.
- b. Directions to the location from Price, Utah are as follows:

From Price proceed north on Highway 6 for 9.0 miles. Turn right onto Highway 33 and proceed northeasterly for 6.3 miles. Turn right onto a county road and proceed west for 0.7 miles. Turn south onto an existing oilfield road and proceed 0.7 miles to a fork in the road. Turn left and follow an existing road for 1.0 miles to the Shimmin Trust #2 well. Continue in a southeasterly direction for 0.4 miles to a fork in the new access route. Turn right and follow the flagging an additional 0.4 miles in a south and west direction to the location.
- c. For location of access roads within a 2-Mile radius, see Maps A & B.
- d. Improvement to the existing access will not be necessary.
- e. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.
- f. Existing roads and newly constructed roads on surface under the jurisdiction of any Surface Managing Agency shall be maintained in accordance with the standards of the SMA.

2. Planned Access Roads

- a. There will be approximately 0.8 miles of new access road to be constructed. The access will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

- b. The maximum grade will be 8%.
- c. No turnouts are planned.
- d. Culverts will be installed as determined necessary by the dirt contractor and operator. One low water crossing will be installed as shown on Map "B".
- e. The access road was centerline flagged at the time of staking.
- f. Surfacing material may be necessary depending on weather conditions, however, none is anticipated at this time.
- g. One cattleguard will be installed as shown on Map "B" if requested by the surface owners.
- h. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

3. Location of Existing Wells Within a 1-Mile Radius of the Proposed Location. (See Map #B).

- a. Water wells -none
- b. Injection wells -none
- c. Producing wells - three
- d. Drilling wells - none

4. Location of Tank Batteries and Production Facilities.

- a. All permanent structures (onsite for six months or longer) constructed or installed (including oil well pump jacks) will be painted a neutral color to blend with the surrounding environment. Facilities required to comply with

the Occupational Safety and Health Act (OSHA) will be excluded.

- b. If storage facilities/tank batteries are constructed on this lease, the facility/battery or the wellpad shall be surrounded by a containment dike of sufficient capacity to contain at a minimum, the entire content of the largest tank within the facility/battery, unless more stringent protective requirements are deemed necessary by the authorized officer.
- c. All loading lines will be placed inside the berm surrounding the tank battery.
- d. Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried or anchored down from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.
- e. The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil and Gas Order No. 4 for liquid hydrocarbons and Onshore Oil and Gas Order No. 5 for natural gas measurement.
- f. A Sundry Notice will be submitted showing placement of all production facilities prior to construction.
- g. Any necessary pits will be properly fenced to prevent any wildlife entry.
- i. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.
- j. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the Authorized Officer.
- k. All access roads will be maintained as necessary to prevent erosion and

accommodate year-round traffic.

1. The road will be maintained in a safe useable condition.

5. Location and Type of Water Supply

- a. All water needed for drilling purposes will be obtained from the following existing production pits:

- 1) N 540' E 1900' from SW cor., Sec. 11, T12S - R10E
- 2) N 793' W 780' from SE cor., Sec. 11, T12S - R10E
- 3) S 1980' E 1780' from NW cor., Sec. 14, T12S - R10E
- 4) S 660' W 2340' from NE cor., Sec. 14, T12S - R10E
- 5) S 1980' W 800' from NE cor., Sec. 14, T12S - R10E

- b. Water will be hauled to location over the roads marked on Maps A and B.
- c. No water well is to be drilled on this lease.
- d. A copy of the approved water permit is on file with the Division of Water Rights in Price, Utah. (t92-91-12).

6. Source of Construction Material

- a. Surface and subsoil materials in the immediate area will be utilized.
- b. Any gravel used will be obtained from a private or commercial source.
- c. The use of materials under BLM jurisdiction will conform with 43 CFR 3610.2.3. Construction material will not be located on lease.
- d. No construction materials will be removed from Federal land.



7. Methods of Handling Waste Disposal

- a. The reserve pit will be constructed so as not to leak, break, or allow discharge. The reserve pit will be lined if determined necessary at the time of construction.
- b. If the pit is lined, a plastic nylon reinforced liner will be used. It will be a minimum of 12 mil thickness with sufficient bedding (either straw or dirt) to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash, scrap pipe, etc., that could puncture the liner will be disposed of in the pit.
- c. Burning will not be allowed. All trash will be contained in a trash cage and its contents removed at the end of drilling operations and hauled to an approved disposal sight.
- d. After first production, produced waste water will be confined to a unlined pit or storage tank for a period not to exceed ninety (90) days. During the 90-day period, in accordance with NTL-2B, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the AO's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance.
- e. Drill cuttings are to be contained and buried in the reserve pit.
- f. Any salts and/or chemicals which are an integral part of the drilling system will be disposed of in the same manner as the drilling fluid.
- g. Sewage will be placed in a portable chemical toilet or holding tank and disposed of in accordance with state and county regulations.
- h. The produced fluids (other than water) will be produced into a test tank until such time as construction of production facilities is completed. Any spills of oil, gas salt water or other produced fluids will be cleaned up and removed.

8. Ancillary Facilities

There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

9. Well Site Layout

- a. The reserve pit will be located on the southwest side of the location.
- b. The stockpiled topsoil (first six inches) will be stored along the perimeter of the location as shown on the rig layout.
- c. See Location Layout for orientation of rig, cross section of drill pad and cuts and fills.
- d. The location of mud tanks; reserve pit, trash cage; pipe racks; living facilities and soil stockpiles will be shown on the Location Layout.
- e. During construction, all brush will be removed from the wellpad and access road and stockpiled separately from the topsoil.
- f. All pits will be fenced to prevent wildlife entry.
- g. The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off the location. Pits will be fenced and maintained until cleanup.

10. Plans for Restoration of Surface

Producing Location

- a. Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, materials, trash and junk not required for production.

- b. Immediately upon well completion, any hydrocarbons on the pit shall be removed in accordance with 43 CFR 3162.7-1.
- c. If a plastic nylon reinforced liner is used, it shall be torn and perforated before backfilling of the reserve pit.
- d. Once the reserve pit is dry, the reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours.
- e. The location will be reclaimed and reseeded as per the surface owner's request.

Dry Hole

- f. At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment.

11. Surface Ownership

Access Roads - All roads are County maintained or private surface.

Wellpad - The well pad is located on lands owned by Mathis Land, Inc., c/o Dale Mathis, Sunnyside Star Route, Price, UT 84501.

12. Other Information

- a. A Class III archeological survey was conducted by Sagebrush Archeological Consultants. No significant cultural resources were found and clearance has been recommended. A copy of this report is attached.
- b. The operator is responsible for informing all persons in the areas who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during

construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

-whether the materials appear eligible for the National Register of Historic Places;

-the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and

-a time frame for the AO to complete and expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that required mitigation has been completed, the operator will then be allowed to resume construction.

- c. All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved plan of operations, and any applicable Notice to Lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.
- d. A complete copy of the approved APD shall be on location during construction of the location and drilling activities.
- e. There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.h.

ONSHORE ORDER NO. 1  
PG & E Resources Company  
#16-14 Federal  
1124' FSL and 964' FEL  
SE SE Sec. 14, T12S - R10E  
Carbon County, Utah

CONFIDENTIAL - TIGHT HOLE

SURFACE USE PLAN  
Page 9

- f. "Sundry Notice and Report on Wells" (From 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.
- g. This permit will be valid for a period of one year from the date of approval. An extension period may be granted, if requested, prior to the expiration of the original approval period.
- h. The operator or his contractor shall contact the BLM Offices at 801/977-4300 48 hours prior to construction activities.

13. Lessee's or Operator's Representative and Certification

Permit Matters  
PERMITCO INC.  
Lisa L. Smith  
13585 Jackson Drive  
Denver, CO 80241  
303/452-8888

Drilling & Completion Matters  
PG & E Resources Company  
6688 N. Central Expressway  
Suite 1000  
Dallas, TX 75206  
214/750-3800 - (W) George Taylor  
214/233-5640 - (H)  
801/789-4573 - (W) Mike McMican

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by PG & E Resources Company and its contractors and subcontractors in conformity with the plan and the terms and conditions under which it is approved.

ONSHORE ORDER NO. 1  
PG & E Resources Company  
#16-14 Federal  
1124' FSL and 964' FEL  
SE SE Sec. 14, T12S - R10E  
Carbon County, Utah

CONFIDENTIAL - TIGHT HOLE


SURFACE USE PLAN

Page 10

This statement is subject to the provisions of 18.U.S.C. 1001 for the filing of a false statement.

August 25, 1992

Date:

  
Lisa L. Smith - PERMITCO INC.  
Authorized Agent for:  
PG & E Resources Company

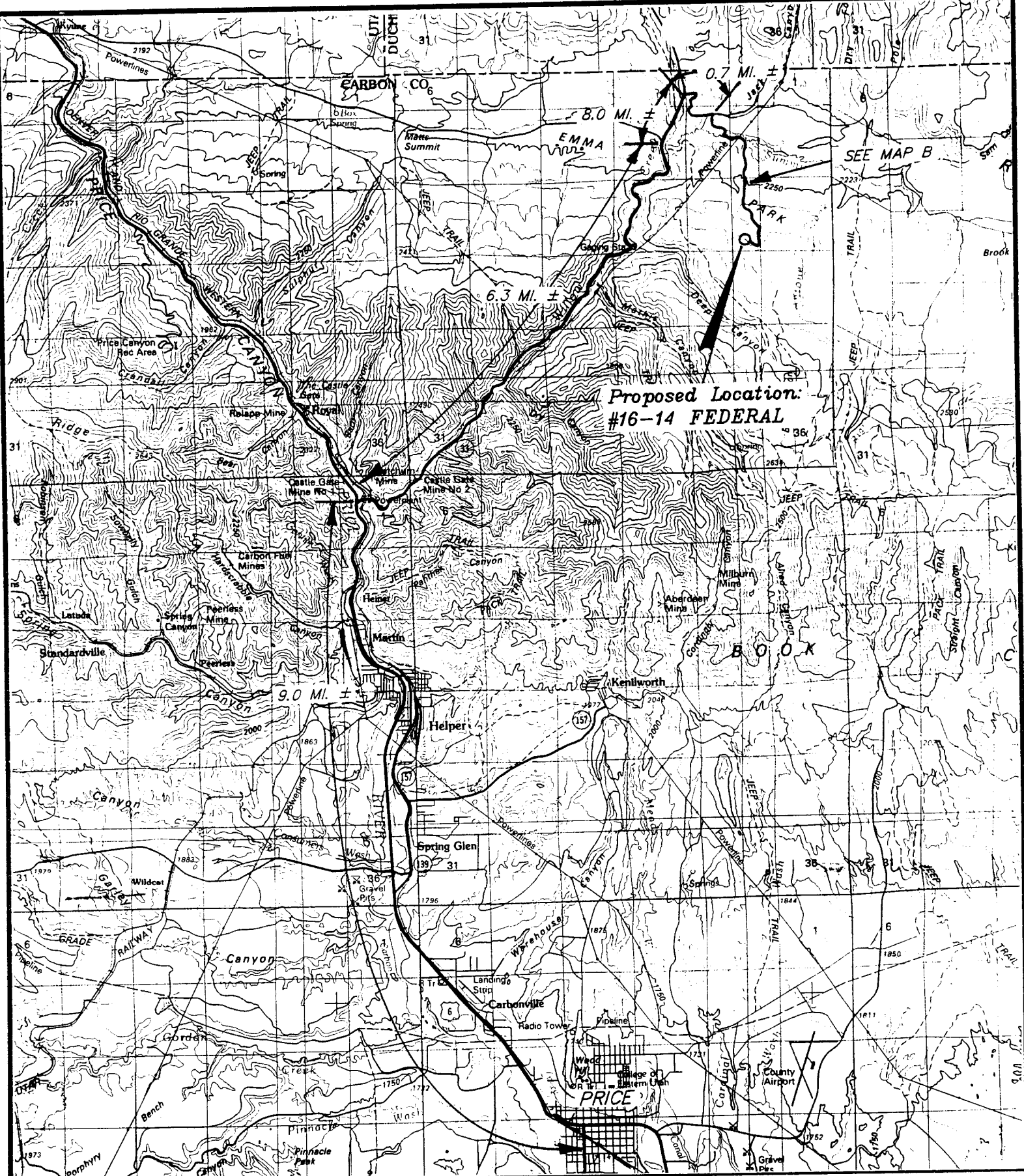
TOPOGRAPHIC  
MAP "A"

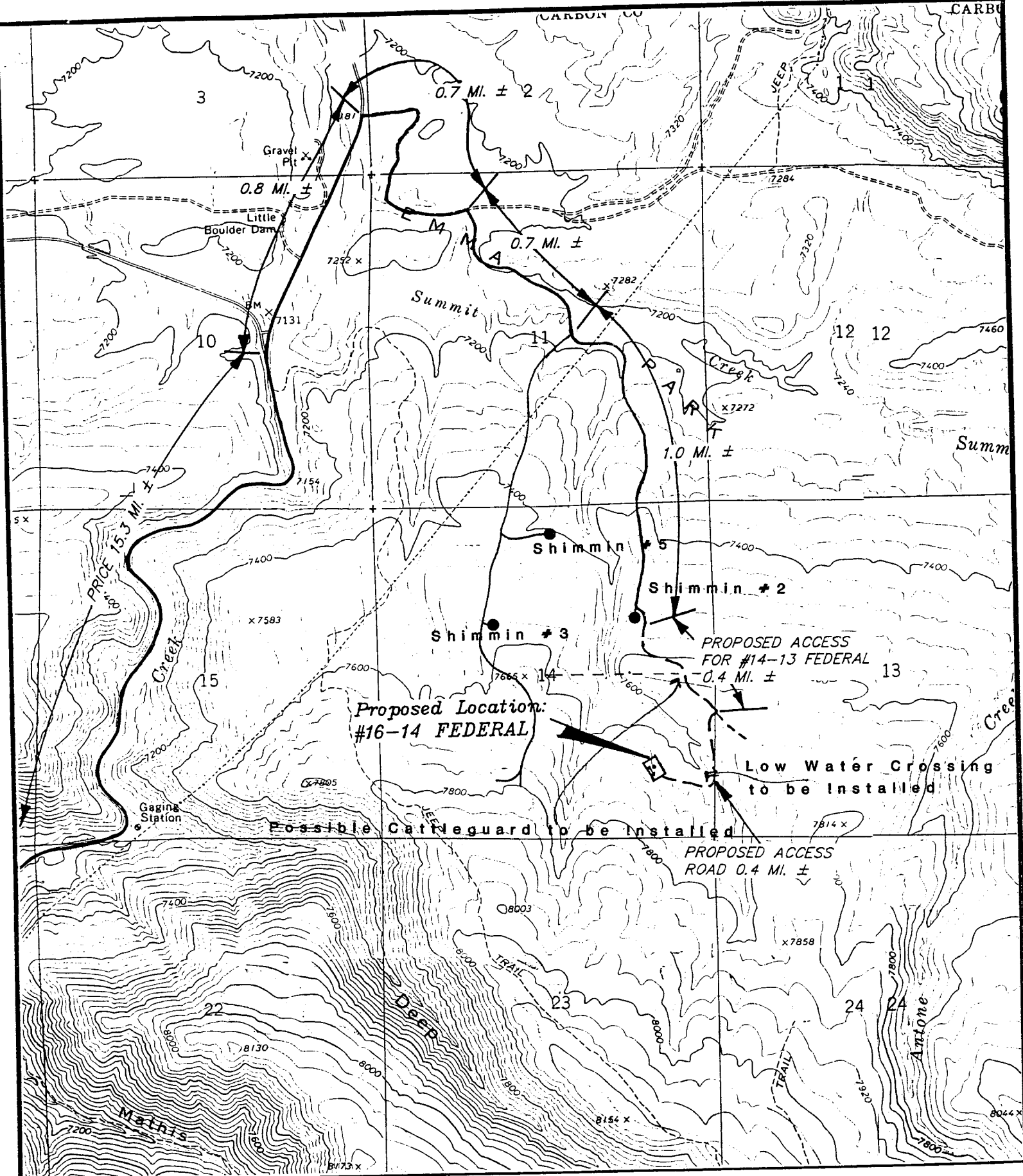
DATE 7-22-92 J.L.G.



**PG&E RESOURCES COMPANY**

#16-14 FEDERAL  
SECTION 14, T12S, R10E, S.L.B.&M.  
1124' FSL 964' FEL







**There are no federal stipulations at this time.**

**A CULTURAL RESOURCES SURVEY OF  
PG&E WELLS FEDERAL 16-14 and 14-13 AND ACCESS ROADS,  
CARBON COUNTY, UTAH**

by

**Michael R. Polk  
Principal Investigator**

Prepared for:

**PG&E Resources Company  
P.O. Box 25655  
Dallas, Texas 75225**

Prepared by:

**Sagebrush Archaeological Consultants  
3670 Quincy Avenue, Suite 203  
Ogden, Utah 84403**

**Under Authority of Cultural Resources Use Permit No. 91-UT-54630**

**and**

**Utah State Antiquities Permit No. U-92-SJ-341b,p**

**Archaeological Report No. 550**

**August 5, 1992**

## INTRODUCTION

In July 1992, PG&E Resources Company (PG&E) requested that Sagebrush Archaeological Consultants (Sagebrush) conduct a cultural resources inventory of two well locations and access roads for PG&E wells #16-14 Federal and #14-13 Federal in Carbon County, Utah. The well locations are located in T. 12S., R. 10E., S. 14 SE $\frac{1}{4}$ SE $\frac{1}{4}$  and S. 13 CSW $\frac{1}{4}$ . Footages for the well locations are as follows: #16-14 (1124' FSL, 964' FEL); #14-13 (914' FSL, 1677' FWL). The access road segments surveyed are also located within S. 14 and 13. The project area lies on the 7.5' USGS Matts Summit, Utah Quadrangle (1969) on private surface lands with federal minerals ownership (Figure 1). The project was carried out by the author on July 23, 1992 under authority of Cultural Resources Use Permit No. 91-UT-54630 and Utah State Antiquities Permit No. U-92-SJ-341b,p.

A file search was carried out by Evie Seelinger of the State Historic Preservation Office (SHPO) in Salt Lake City on July 15, 1992 to determine if any cultural resources projects had been conducted or sites recorded in the project area. This also included a search of paleontological records. In addition, a file search was done by the author on July 22, 1992 at the Bureau of Land Management, Price Resource Area Office, prior to conducting the fieldwork.

One project has been undertaken in the vicinity of the present project area. In 1990 Metcalf Archaeological Consultants conducted an inventory of five well pads and access roads for Cockrell Oil Corporation in the area. One of these wells lay in the NW $\frac{1}{4}$ NW $\frac{1}{4}$  of S. 13. No sites were found during this inventory.

In addition to a search of previous projects and known sites, the National Register of Historic Places (NRHP) was consulted prior to conducting the survey. No Register sites were found to exist in the vicinity.

## ENVIRONMENT

The well pads and access roads are located in rugged and high topography on the south side of the west end of the Book Cliffs-Roan Plateau Region of the Colorado Plateau. The project location is on the south side of Emma Park Valley on slight to moderately sloping terrain with a few outcrops of limestone and sandstone bedrock. The elevation of the area ranges from 7520 to 7730 feet a.s.l. Soils in the area are generally silts and silty clays. Vegetation cover ranges from 30 to 60 percent in a sagebrush-bunchgrass community. It includes sagebrush, bunchgrass, rabbitbrush, and prickly pear cactus. Most of the sagebrush along the access road has been killed by herbicide. In the area of the 14-13 well the vegetation cover is denser and includes chokecherry, juniper, and scrub oak. The vegetation in the area of the 16-14 well also includes aspen groves and some juniper. The nearest permanent water source to the area is Deep Creek, located about one half mile to the southwest.

Natural disturbance in the area includes sheetwash and some arroyo cutting. Cultural disturbance has been caused by an existing well location, two track roads and fence lines.

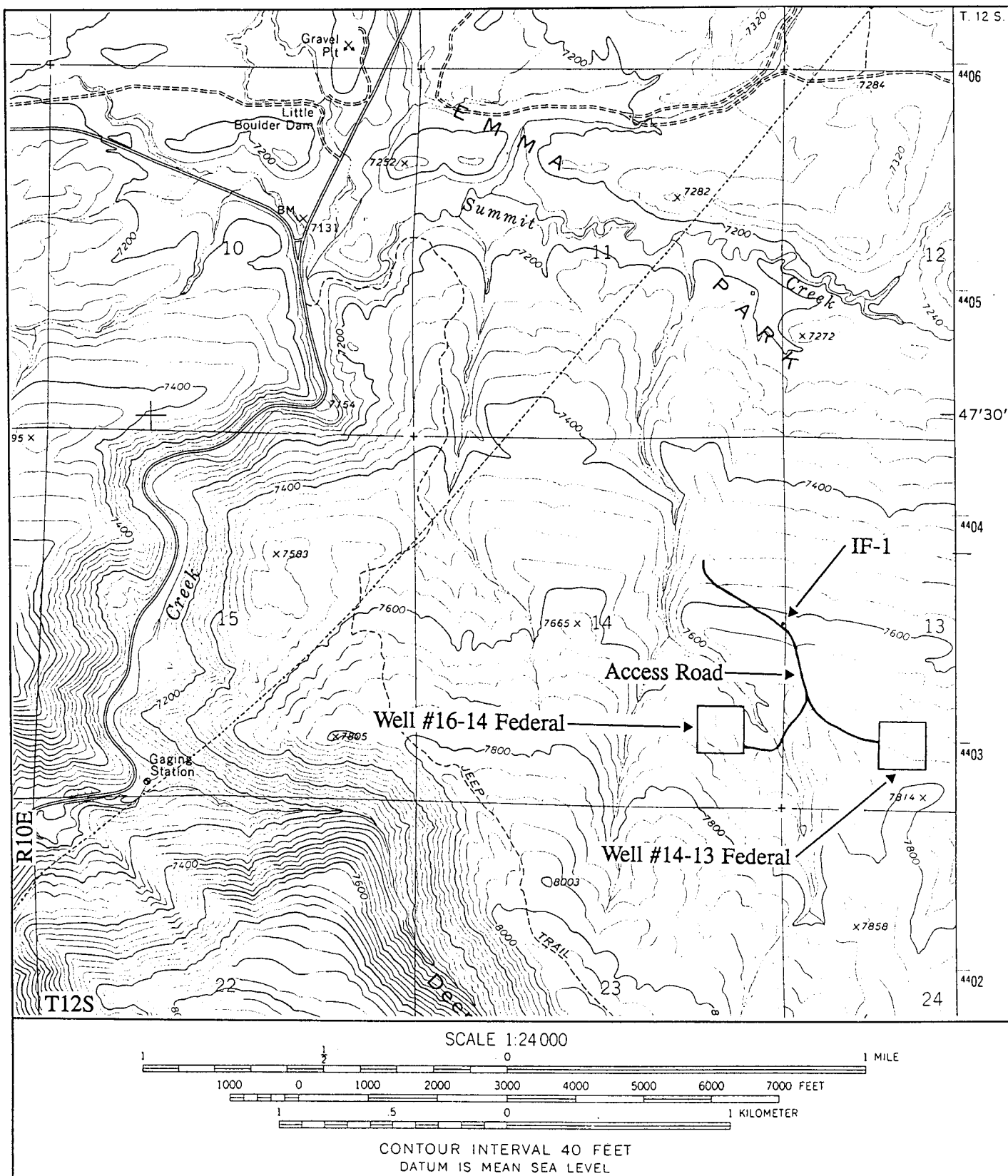


Figure 1. Locations of PG&E Resources wells Federal #16-14 and Federal #14-13 with access roads and IF-1 shown. Taken from: USGS 7.5 Quadrangle Matts Summit, Utah (1969).

## **METHODOLOGY**

The survey area covered during this project consists of two 10 acre parcels of land centered on the well heads and proposed access road corridors connecting the well locations to existing roads. The well pad areas were inventoried by the author in parallel transects spaced 15 meters apart. The access roads, which total 1.02 miles in length, were walked in two parallel transects to cover a corridor width of 100 feet (30 meters). The area surveyed on this project (including both well pads and access roads) totaled 32.17 acres.

## **RESULTS**

One isolated find of several historic metal objects was encountered along the access road in S. 14 (IF-1). Found on a thickly vegetated steep slope were one hole-in-top can, two tobacco tins, two fragments of other cans and a fragment of smooth wire. There were no features associated with the materials nor was there an indication of cultural depth at the location. No other isolated finds, sites or paleontological remains were found during this inventory.

## **RECOMMENDATIONS**

The one isolated find (IF-1) recorded during the inventory is not considered significant. It lacks physical integrity, is not associated with cultural features and lacks any potential cultural depth.

Because significant cultural or any paleontological resources were not found during this inventory, both cultural and paleontological clearance is recommended for the proposed project.

This investigation was conducted with techniques which are considered to be adequate for evaluating cultural and paleontological resources which could be adversely affected by the project. However, should such resources be discovered during construction, a report should be made immediately to the State Archaeologist, Antiquities Section, Division of State History, Salt Lake City.

**Southeast District Health Dept.**

**P.O. Box 800**

**Price, UT 84501**

**801/637-3671**

<b>Operator</b> PG & E Resources Company	<b>Telephone</b> 214/750-3800	
<b>Address</b> 6688 N. Central Expressway, Suite 1000 Dallas, TX 75206	<b>Contact</b> Jim LaFevers	
<b>Agent</b> Permitco Inc.	<b>Telephone</b> 303/452-8888	
<b>Address</b> 13585 Jackson Drive Denver, CO 80241	<b>Contact</b> Lisa Smith	
<b>Well Name and Number</b> #16-14 Federal		
<b>Legal Location</b> 1124' FSL and 964' FEL SE SE Sec. 14, T12S - R10E	<b>County</b> Carbon	<b>State</b> Utah


**Proposed Facilities:**

1) Holding Tank	Size 1500 gallon	Supplier Mtn. West Oilfield Services
2) Fresh Water Tank	Size 100 Bbl.	Supplier West Hazmat
3) Trash Cage		Supplier Mtn. West Oilfield Services
3) Porta-Toilets	# 2	Supplier Mtn. West Oilfield Services
4) Trailers/Living Facilities		# 2
5) Total Personnel Onsite		# 8

**Proposed Spud Date:** October 5, 1992

**Attachments:** Rig Layout  
Topographic Map

**Comments:**  
Proposed rig: Grace Rig #181

<b>Signature</b> 	<b>Title:</b> Consultant for PG & E Resources Company	<b>Date:</b> 8/25/92
---	--	-------------------------



RECEIVED

AUG 27 1992

August 25, 1992

DIVISION OF  
OIL GAS & MINING

Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203  
Attn: Tammi Searing

Re: PG & E Resources Company  
#16-14 Federal  
1124' FSL and 964' FEL  
SE SE Sec. 14, T12S - R10E  
Carbon County, Utah

Dear Tammi,

Enclosed please find three copies of the A.P.D. on the above mentioned well along with one copy of the Onshore Order No. 1 which was filed with the Bureau of Land Management. A temporary change application is on file with the Division of Water Rights, Price, Utah for use of the proposed water sources.

Please forward approved copies of the A.P.D. to Jim LaFevers at PG & E's new address:

PG & E Resources Company  
6688 N. Central Expressway, Suite 1000  
Dallas, TX 75206

If you should need additional information, please feel free to contact me.

Sincerely,

PERMITCO INC.

Lisa L. Smith

Consultant for:

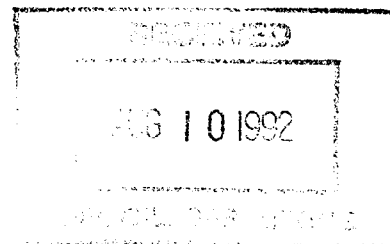
PG & E Resources Company

Enc.

cc: PG & E - Dallas, TX  
PG & E - Vernal, UT

Permitco Incorporated  
A Petroleum Permitting Company

13585 Jackson Drive Denver, Colorado 80241 (303) 452-8888



August 6, 1992

Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

Attn: Tammi Searing

Re: PG & E Resources Company  
Castlegate Prospect  
Application for Temporary Change  
of Water  
Carbon County, Utah

Dear Tammi,

Enclosed please find one copy of the Application for Temporary Change of Water for PG & E's Castlegate Prospect in Carbon County, Utah.

As you know, several Applications for Permit to Drill have already been submitted and several additional applications will be forthcoming.

In future applications I will reference the Change Application Number (t92-91-12 (91 Area), rather than send additional copies of this application.

If you should need additional information, please feel free to contact me.

Sincerely,

PERMITCO INC.

Lisa L. Smith  
Consultant for:  
PG & E Resources Company

Enc.

cc: PG & E Resources - Dallas, TX  
PG & E Resources - Vernal, UT

Permitco Incorporated  
A Petroleum Permitting Company

13585 Jackson Drive Denver, Colorado 80241 (303) 452-8888





STATE OF UTAH  
NATURAL RESOURCES  
Water Rights

Norman H. Bangertor, Governor  
Dee C. Hansen, Executive Director  
Robert L. Morgan, State Engineer

Southeastern Area • 453 S. Carbon Avenue • P.O. Box 718 • Price, UT 84501-0718 • 801-637-1303

July 31, 1992

West Hazmat Oil Field Services Inc.  
Attn: Dale Price  
East Highway 40  
Roosevelt, Utah 84066

Re: Temporary Change Application #t92-91-12  
Expiration Date: November 30, 1992

Dear Mr. Price:

The above referenced Temporary Change Application is hereby approved, and a copy is enclosed for your information and records.

If you have any questions, please feel free to contact me.

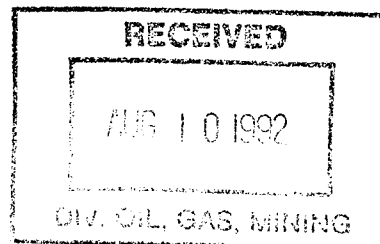
Sincerely,

*William A. Warrick*

*for* Mark P. Page  
Regional Engineer

cc: Bob Davis - Price River Commissioner

Enclosures  
MPP/mjk



# APPLICATION FOR TEMPORARY CHANGE OF WATER

AUG 10 1992

DIV. OIL, GAS, MINING

STATE OF UTAH

WATER RIGHTS

Rec. by \_\_\_\_\_

Fee Paid \$ \_\_\_\_\_

Receipt # \_\_\_\_\_

Microfilmed \_\_\_\_\_

Roll # \_\_\_\_\_

For the purpose of obtaining permission to make a temporary change of water in the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Section 73-3-3 Utah Code Annotated 1953, as amended.

\*WATER RIGHT NO. 91 Area \_\_\_\_\_ \*APPLICATION NO. 92 91 12

Changes are proposed in (check those applicable)

☒ point of diversion. ☒ place of use. ☒ nature of use. ☒ period of use.

## 1. OWNER INFORMATION

Name: West Hazmat Oil Field Services Inc. \*Interest: \_\_\_\_\_%

Address: East Highway 40

City: Roosevelt State: Utah Zip Code: 84066

2. \*PRIORITY OF CHANGE: July 31, 1992 \*FILING DATE: July 31, 1992

\*Is this change amendatory? (Yes/No): No

3. RIGHT EVIDENCED BY: 91-366, Cert. #a229, Morse Decree First Class

Prior Approved Temporary Change Applications for this right: t91-91-09; t92-91-03; t92-91-04;  
t92-91-05; t92-91-09; t92-91-10.

\*\*\*\*\* HERETOFORE \*\*\*\*\*

4. QUANTITY OF WATER: 7.98 cfs and/or \_\_\_\_\_ ac-ft.

5. SOURCE: Price River

6. COUNTY: Carbon

7. POINT(S) OF DIVERSION: S. 560 ft. & E. 680 ft. from N $\frac{1}{2}$  Cor. Sec. 1, T14S, R9E, SLB&M.

Description of Diverting Works: Concrete diversion dam, earthen ditches

## 8. POINT(S) OF REDIVERSION

The water has been rediverted from \_\_\_\_\_ at a point: \_\_\_\_\_

Description of Diverting Works: \_\_\_\_\_

## 9. POINT(S) OF RETURN

The amount of water consumed is 7.98 cfs or \_\_\_\_\_ ac-ft.

The amount of water returned is \_\_\_\_\_ cfs or \_\_\_\_\_ ac-ft.

The water has been returned to the natural stream/source at a point(s): \_\_\_\_\_

\*These items are to be completed by the Division of Water Rights.

Temporary Change

## 10. NATURE AND PERIOD OF USE

Irrigation: From march 1 to November 30  
Stockwatering: From \_\_\_\_\_ to \_\_\_\_\_  
Domestic: From \_\_\_\_\_ to \_\_\_\_\_  
Municipal: From \_\_\_\_\_ to \_\_\_\_\_  
Mining: From \_\_\_\_\_ to \_\_\_\_\_  
Power: From \_\_\_\_\_ to \_\_\_\_\_  
Other: From \_\_\_\_\_ to \_\_\_\_\_

## 11. PURPOSE AND EXTENT OF USE

Irrigation: 12,576.07 acres. Sole supply of 488.10 acres.

Stockwatering (number and kind): \_\_\_\_\_

Domestic: \_\_\_\_\_ Families and/or \_\_\_\_\_ Persons.

Municipal (name): \_\_\_\_\_

Mining: \_\_\_\_\_ Mining District in the \_\_\_\_\_ Mine.

Ores mined: \_\_\_\_\_

Type: \_\_\_\_\_ Capacity: \_\_\_\_\_

Power: Plant name: \_\_\_\_\_

Other (describe): \_\_\_\_\_

## 12. PLACE OF USE

Legal description of place of use by 40 acre tract(s): Carbon Canal Delivery System

## 13. STORAGE

Reservoir Name: \_\_\_\_\_ Storage Period: from \_\_\_\_\_ to \_\_\_\_\_

Capacity: \_\_\_\_\_ ac-ft. Inundated Area: \_\_\_\_\_ acres.

Height of dam: \_\_\_\_\_ feet.

Legal description of inundated area by 40 tract(s): \_\_\_\_\_

## \*\*\*\*\* THE FOLLOWING CHANGES ARE PROPOSED \*\*\*\*\*

14. QUANTITY OF WATER: \_\_\_\_\_ cfs and/or 13.0 ac-ft.

15. SOURCE: 1) Willow Creek 2) Underground Exploratory Wells

Balance of the water will be abandoned: \_\_\_\_\_, or will be used as heretofore: X

16. COUNTY: Carbon

17. POINT(S) OF DIVERSION: See Attached Sheet

Description of Diverting Works: 1) Portable pump to tank truck 2) Existing 5 1/2" casing,  
4425 to 4667 feet deep  
COMMON DESCRIPTION: 10 miles NE of Helper Matts Summit Quad

## 18. POINT(S) OF REDIVERSION

The water will be rediverted from \_\_\_\_\_ at a point: \_\_\_\_\_

Description of Diverting Works: \_\_\_\_\_

## 19. POINT(S) OF RETURN

The amount of water to be consumed is \_\_\_\_\_ cfs or 13.0 ac-ft.

The amount of water to be returned is \_\_\_\_\_ cfs or \_\_\_\_\_ ac-ft.

The water will be returned to the natural stream/source at a point(s): \_\_\_\_\_

## -20. NATURE AND PERIOD OF USE

Irrigation: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Stockwatering: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Domestic: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Municipal: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Mining: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Power: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Other: From 7/31/92 to 11/30/92

## 21. PURPOSE AND EXTENT OF USE

Irrigation: \_\_\_\_\_ acres. Sole supply of \_\_\_\_\_ acres.  
Stockwatering (number and kind): \_\_\_\_\_  
Domestic: \_\_\_\_\_ Families and/or \_\_\_\_\_ Persons.  
Municipal (name): \_\_\_\_\_  
Mining: \_\_\_\_\_ Mining District at the \_\_\_\_\_ Mine.  
Ores mined: \_\_\_\_\_ Type: \_\_\_\_\_ Capacity: \_\_\_\_\_  
Power: Plant name: \_\_\_\_\_  
Other (describe): Exploration drilling, road construction, dust suppression

## 22. PLACE OF USE

Legal description of place of use by 40 acre tract(s): See Attached Sheet

## 23. STORAGE

Reservoir Name: \_\_\_\_\_ Storage Period: from \_\_\_\_\_ to \_\_\_\_\_  
Capacity: \_\_\_\_\_ ac-ft. Inundated Area: \_\_\_\_\_ acres.  
Height of dam: \_\_\_\_\_ feet.  
Legal description of inundated area by 40 tract(s): \_\_\_\_\_

## 24. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. Include any supplemental water rights used for the same purpose. (Use additional pages of same size if necessary):  
This Temporary Change Application is being filed to replace t91-91-09 & t92-91-10 to correct the points of diversion and place of use. To date approximately 0.77 AF has been utilized under t91-91-09.

\*\*\*\*\*  
The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Dale Price

Signature of Applicant(s)

West Hazmat Oil Field Services Inc.  
Temporary Change Application  
#t92-91-12 (91 Area)  
July 31, 1992

#17 Points of Diversion:

Willow Creek:  
N. 320 ft. & W. 290 ft. from SE Cor. Sec. 3, T12S, R20E, SLB&M.

Shimmin Trust Wells:

Shimmin Trust #1: N. 793 ft. & W. 780 ft. from SE Cor. Sec. 11;  
Shimmin Trust #2: S. 1980 ft. & W. 800 ft. from NE Cor. Sec. 14;  
Shimmin Trust #3: S. 1980 ft. & E. 1780 ft. from NW Cor. Sec. 14;  
Shimmin Trust #4: N. 540 ft. & E. 1900 ft. from SW Cor. Sec. 11;  
Shimmin Trust #5: S. 660 ft. & W. 2340 ft. from NE Cor. Sec. 14;  
all T12S, R10E, SLB&M.

#22 Place of Use:

1210-0806: S. 2400 ft. & E. 1769 ft. from NW Cor. Sec. 8 (SE4NW4)  
#7-9 Federal: S. 2109 ft. & W. 2038 ft. from NE Cor. Sec. 9 (SW4NE4)  
#4-15 Federal: S. 660 ft. & E. 450 ft. from NW Cor. Sec. 15 (NW4NW4)  
#4-13 Federal: S. 1174 ft. & E. 1168 ft. from NW Cor. Sec. 13 (NW4NW4)  
#9-10 Jensen: N. 2500 ft. & W. 1020 ft. from SE Cor. Sec. 10 (NE4SE4)  
#2-16 State: S. 780 ft. & W. 1971 ft. from NE Cor. Sec. 16 (NW4NE4)  
#9-16 State: N. 1993 ft. & W. 702 ft. from SE Cor. Sec. 16 (NE4SE4)  
#11-10 Jensen: N. 1650 ft. & E. 1650 ft. from SW Cor. Sec. 10 (NE4SW4)  
#5-10 Jensen: S. 1680 ft. & E. 660 ft. from NW Cor. Sec. 10 (SW4NW4)  
#16-10 Jensen: N. 330 ft. & W. 330 ft. from SE Cor. Sec. 10 (SE4SE4)  
#7-15 Jensen: S. 1650 ft. & W. 1650 ft. from NE Cor. Sec. 15 (SW4NE4)  
#11-11 Shimmin Trust: N. 2350 ft. & E. 1500 ft. from SW Cor. Sec. 11 (NE4SW4)  
#10-11 Shimmin Trust: N. 2300 ft. & W. 1850 ft. from SE Cor. Sec. 11 (NW4SE4)  
#12-12 Shimmin Trust: N. 2310 ft. & E. 990 ft. from SW Cor. Sec. 12 (NW4SW4)  
#14-12 Shimmin Trust: N. 660 ft. & E. 1980 ft. from SW Cor. Sec. 12 (SE4SW4)  
#11-15 Jensen: N. 1850 ft. & E. 1650 ft. from SW Cor. Sec. 15 (NE4SW4)  
#16-9 Jensen: N. 1150 ft. & W. 1150 ft. from SE Cor. Sec. 9 (SE4SE4)  
#16-15 Federal: N. 990 ft. & W. 990 ft. from SE Cor. Sec. 15 (SE4SE4)  
#14-14 Federal: N. 990 ft. & E. 1650 ft. from SW Cor. Sec. 14 (SE4SW4)  
#14-16 Federal: N. 990 ft. & W. 990 ft. from SE Cor. Sec. 14 (SE4SE4)  
#14-13 Federal: N. 990 ft. & E. 1650 ft. from SW Cor. Sec. 13 (SE4SW4)  
All T12S, R10E, SLB&M.

Alternate Wells:

#12-9 Jensen: N. 2054 ft. & E. 592 ft. from SW Cor. Sec. 9 (NW4SW4)  
#14-9 Jensen: N. 675 ft. & E. 2170 ft. from SW Cor. Sec. 9 (SE4SW4)  
#4-16 State: S. 922 ft. & E. 750 ft. from NW Cor. Sec. 16 (NW4NW4)  
#11-16 State: N. 1980 ft. & E. 1980 ft. from SW Cor. Sec. 16 (NE4SW4)  
All T12S, R10E, SLB&M.

STATE ENGINEER'S ENDORSEMENT

TEMPORARY CHANGE APPLICATION NUMBER: t92-91-12

1. July 31, 1992 Change Application received by BW.
2. July 31, 1992 Application designated for APPROVAL by MP.
3. Comments:

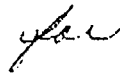
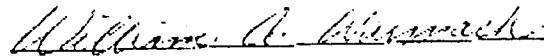
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## Conditions:

This application is hereby APPROVED, dated July 31, 1992, subject to prior rights and this application will expire on November 30, 1992.



Mark Page, Area Engineer

for

Robert L. Morgan, State Engineer

# APPLICATION FOR PERMIT TO DRILL

DATE RECEIVED: 08/27/92

OPERATOR: PG & E RESOURCES COMPANY  
WELL NAME: FEDERAL 16-14

OPERATOR ACCT NO: N-0595

API NO. ASSIGNED: 43-007-30174

LEASE TYPE: FED LEASE NO: DTU-65949  
LOCATION: SESE 14 - T12S - R10E CARBON COUNTY  
FIELD: WILDCAT FIELD CODE: 001

## RECEIVED AND/OR REVIEWED:

☒ Plat  
☒ Bond  
☒ (Number federal)  
☒ Potash (Y/N)  
☒ Oil shale (Y/N)  
☒ Water permit  
☒ (Number 790-91-10)  
☒ RDCC Review (Y/N)  
☒ (Date: 8-28-92)

## LOCATION AND SITING:

☐ R649-2-3. Unit: \_\_\_\_\_  
☐ R649-3-2. General.  
☒ R649-3-3. Exception.  
☐ Drilling Unit.  
Board Cause no: \_\_\_\_\_  
Date: \_\_\_\_\_

## COMMENTS:

Have add wells within the 14 -  
Exception location requested

## STIPULATIONS:

CONFIDENTIAL

PERIOD

EXPIRE

ON 9-28-94



Norman H. Bangerter  
Governor

Dee C. Hansen  
Executive Director

Dianne R. Nielson, Ph.D.  
Division Director

# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340

September 17, 1992

PG & E Resources Company  
6688 N. Central Expressway, #1000  
Dallas, Texas 75206

Gentlemen:

Re: Federal #16-14 Well, 1124 feet from the south line, 964 feet from the east line, SE 1/4 SE 1/4, Section 14, Township 12 South, Range 10 East, Carbon County, Utah

Pursuant to Utah Admin. R. 649-3-3, Exception to Location and Siting of Wells and Utah Admin. R. 649-3-4, Permitting of Wells to be Drilled, Deepened or Plugged-Back, approval to drill the referenced well is hereby granted.

In addition, the following specific actions are necessary to fully comply with this approval:

1. Compliance with the requirements of Utah Admin. R. 649-1 et seq., Oil and Gas Conservation General Rules.
2. Notification within 24 hours after drilling operations commence.
3. Submittal of Entity Action Form, Form 6, within five working days following commencement of drilling operations and whenever a change in operations or interests necessitates an entity status change.
4. Submittal of the Report of Water Encountered During Drilling, Form 7.
5. Prompt notification prior to commencing operations, if necessary, to plug and abandon the well. Notify Frank R. Matthews, Petroleum Engineer, (Office) (801)538-5340, (Home) (801)476-8613, or R.J. Firth, Associate Director, (Home) (801)571-6068.
6. Compliance with the requirements of Utah Admin. R. 649-3-20, Gas Flaring or Venting, if the well is completed for production.

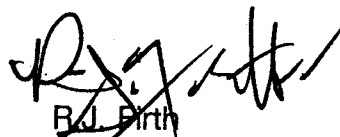


Page 2  
PG & E Resources Company  
Federal #16-14 Well  
September 17, 1992

Trash and sanitary waste should be properly contained and transported to approved disposal locations, not retained in or disposed of in pits on location or downhole. Prior to the commencement of drilling operations, the operator should consult the local/county sanitarian and/or the Department of Environmental Quality, Division of Drinking Water/Sanitation, regarding appropriate disposal of sanitary waste.

This approval shall expire one year after date of issuance unless substantial and continuous operation is underway or a request for an extension is made prior to the approval expiration date. The API number assigned to this well is 43-007-30174.

Sincerely,

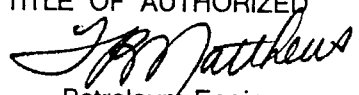


R.J. Birt  
Associate Director, Oil and Gas

ldc  
Enclosures  
cc: Bureau of Land Management  
J.L. Thompson  
WOI1

STATE ACTIONS

Mail to:  
RDCC Coordinator  
116 State Capitol  
Salt Lake City, Utah 84114

1. ADMINISTERING STATE AGENCY  
OIL, GAS AND MINING  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203
2. STATE APPLICATION IDENTIFIER NUMBER:  
(assigned by State Clearinghouse)
3. APPROXIMATE DATE PROJECT WILL START:  
Upon approval
4. AREAWIDE CLEARING HOUSE(s) RECEIVING STATE ACTIONS:  
(to be sent out by agency in block 1)  
Southeastern Utah Association of Governments
5. TYPE OF ACTION: ☐ Lease ☒ Permit ☐ License ☐ Land Acquisition  
☐ Land Sale ☐ Land Exchange ☐ Other
6. TITLE OF PROPOSED ACTION:  
Application for Permit to Drill
7. PG & E Resources Company, proposes to drill the Federal #16-14 well (wildcat) on federal lease UTU-65949 in Carbon County, Utah. This action is being presented to RDCC for consideration of resource issues affecting state interests. The U.S. Bureau of Land Management is the primary administrative agency in this action and must issue approval before operations commence.
8. LAND AFFECTED (site location map required) (indicate county)  
SE/4 SE/4, Section 14, Township 12 South, Range 10 East, Carbon County, Utah
9. HAS THE LOCAL GOVERNMENT(s) BEEN CONTACTED?
10. POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR:  
See Attachment
11. NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE:
12. FOR FURTHER INFORMATION, CONTACT:  
Frank R. Matthews  
PHONE: 538-5340
13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL:  
DATE: 9/1/92  
  
Petroleum Engineer

WOI187

CONFIDENTIAL TIGHT HOLE  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instruct on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☐

GAS  
WELL ☐

OTHER

Coalbed Methane

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR 214/750-3800 6688 N. Central Expressway, #1000

PG & E Resources Company Dallas, TX 75206

3. ADDRESS OF OPERATOR 303/452-8888 13585 Jackson Drive

Permitco Inc. - Agent Denver, CO 80241

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

1124' FSL and 964' FEL

At proposed prod. zone

SE SE Sec. 14

43-007-30174

OCT 02 1992

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

15 miles north of Price, Utah

DIVISION OF

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drilg. unit line, if any)

1124'

16. NO. OF ACRES IN LEASE

2560

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

approx. 2600'

19. PROPOSED DEPTH

4360'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

7651' GR

22. APPROX. DATE WORK WILL START\*

Immediately upon approval  
of this application.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	500'	350 sx or suffic to circ to surf.
7-7/8"	5-1/2"	17#	4360'	405 sx or suffic to cover zones of interest.

PG & E Resources Company proposes to drill a well to 4360' to test the Blackhawk and Star Point Coals for coalbed methane. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

See Onshore Order No. 1 attached.

Please be advised that PG & E Resources Company is considered to be the Operator of the above mentioned well. PG & E Resources Company agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the leased lands.

Bond coverage for this well is provided by Bond No. U-187011. The principal is PG & E Resources Company via surety consent as provided for in 43 CFR 3104.2.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED *Don G. Smith*

Consultant for  
PG & E Resources Company

DATE 8/25/92

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY

TITLE

Assistant District Manager  
for Minerals

DATE

FLARING OR VENTING OF  
GAS IS SUBJECT TO NTL 4-A  
Dated 1/1/80

\*See Instructions On Reverse Side

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

(Other instructions on reverse side)

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work  
 DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. Type of Well  
 Oil Well ☐ Gas Well ☐ Other Coalbed Methane ☒ Single Zone ☒ Multiple Zone ☐

2. Name of Operator 214/750-3800 6688 N. Central Expressway, #1000  
 PG & E Resources Company Dallas, TX 75206

3. Address of Operator 303/452-8888 13585 Jackson Drive  
 Permitco Inc. - Agent Denver, CO 80241

4. Location of Well (Report location clearly and in accordance with any State requirements.)  
 At surface 1124' FSL and 964' FEL  
 At proposed prod. zone SE SE Sec. 14

5. Lease Designation and Serial No. UTU-65949

6. If Indian, Allottee or Tribe Name N/A

7. Unit Agreement Name N/A

8. Farm or Lease Name Federal

9. Well No. #16-14

10. Field and Pool, or Wildcat

11. Sec., T., R., M., or Blk. and Survey or Area Sec. 14, T12S - R10E

12. County or Parrish 13. State Carbon Utah

14. Distance in miles and direction from nearest town or post office\* 15 miles north of Price, Utah

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 1124'

16. No. of acres in lease 2560

17. No. of acres assigned to this well 160

18. Distance from proposed location\* to nearest well, drilling, completed, or applied for, on this lease, ft. approx. 2600'

19. Proposed depth 4360'

20. Rotary or cable tools Rotary

21. Elevations (Show whether DF, RT, GR, etc.) 7651' GR

22. Approx. date work will start\* Immediately upon approval of this application.

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8"	24#	500'	350 sx or suffic to circ to surf.
7-7/8"	5-1/2"	17#	4360'	405 sx or suffic to cover zones of interest.

PG & E Resources Company proposes to drill a well to 4360' to test the Blackhawk and Starpoint Coals for coalbed methane. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

See Onshore Order No. 1 attached.

Bond coverage for this well is provided under Bond No. 8063-38-07 and 8057-26-00.

This location was staked at non-standard footages due to topography. PG & E Resources Company is the lease holder of all lands within a 1/4 mile radius of the proposed location. Therefore, we request administrative approval to an exception to spacing for this well.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. Don G. Smith Consultant for  
 Signed Don G. Smith Title PG & E Resources Company Date 8/25/92  
 (This space for Federal or State office use)

Permit No. \_\_\_\_\_ Approval Date \_\_\_\_\_

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
 Conditions of approval, if any:

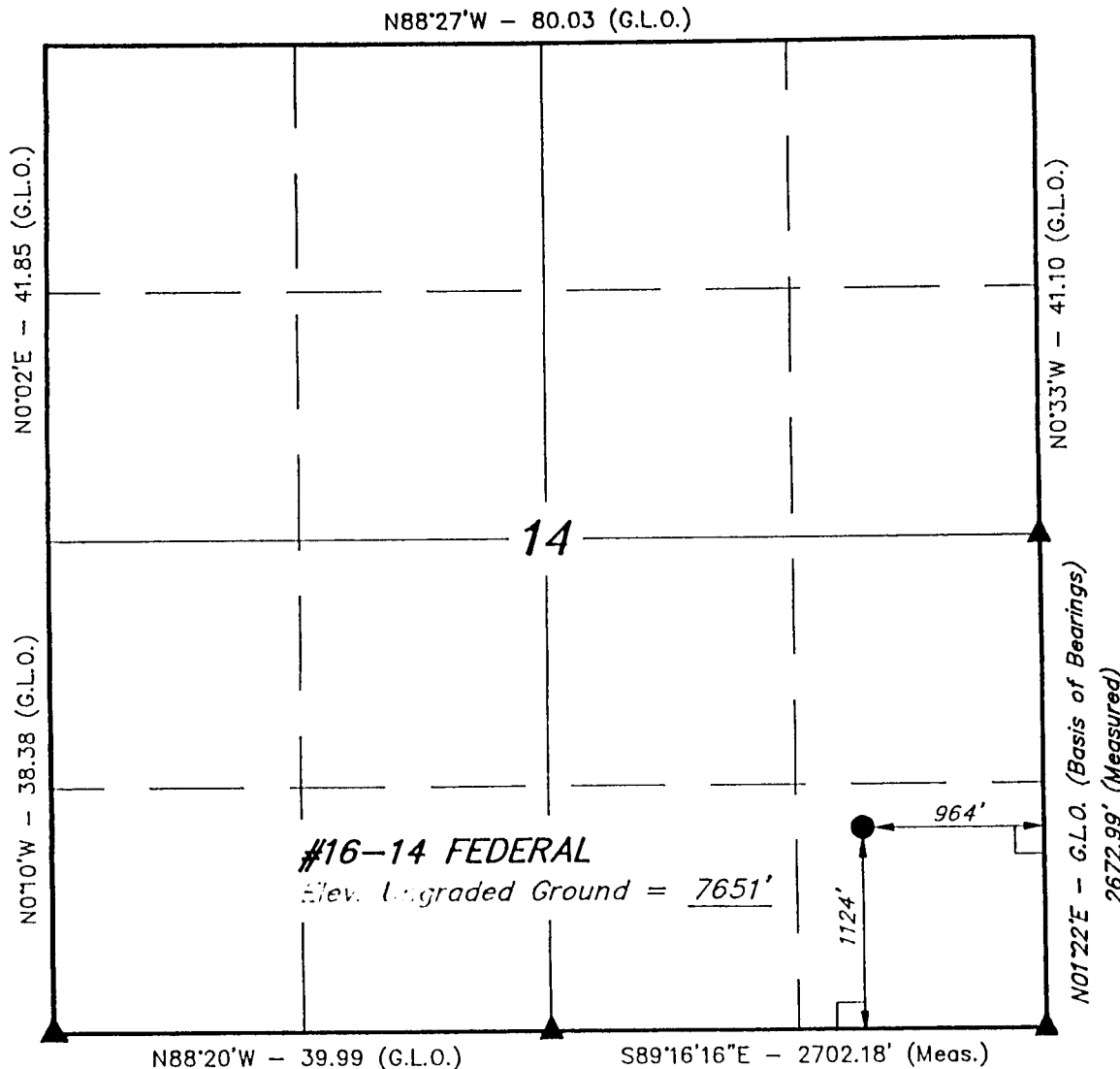
**T12S, R10E, S.L.B.&M.**

**PG&E RESOURCES COMPANY**

Well location, #16-14 FEDERAL, located as shown in the SE 1/4 SE 1/4 of Section 14, T12S, R10E, S.L.B.&M. Carbon County, Utah.

**BASIS OF ELEVATION**

SPOT ELEVATION AT A RIDGE TOP LOCATED IN THE NW 1/4 OF SECTION 23, T12S, R10E, S.L.B.&M. TAKEN FROM THE MATTS SUMMIT QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 8003 FEET.

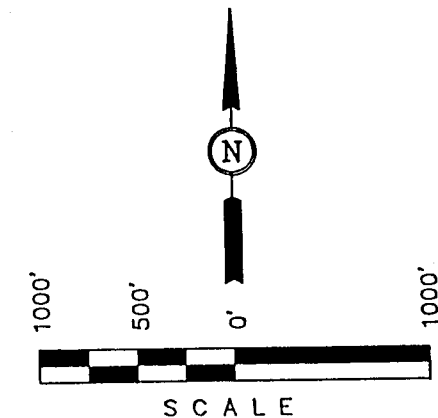


**LEGEND:**

└─┘ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED. (Brass Caps)



**CERTIFICATE**

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Robert J. Kan*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 5709  
STATE OF UTAH

**UTAH ENGINEERING & LAND SURVEYING**  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(801) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 7-20-92	DATE DRAWN: 7-23-92
PARTY G.S. R.A. J.L.G.	REFERENCES G.L.O. PLAT	
WEATHER HOT	FILE PG&E RESOURCES	

PG&E Resources Co.  
Federal 16-14  
Lease U-65949  
SESE Section 14, T.12S., R.10E.  
Carbon County, Utah

#### CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Meridian Oil, Inc is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by WY-2554 (Principal - PG&E Resources Co.) via surety consent as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

A. DRILLING PROGRAM

1. There will be no deviation from the proposed drilling program without prior approval from the Assistant District Manager. "Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2. Safe drilling and operating practices must be observed.
2. Daily drilling and completion progress reports shall be submitted to the District office on a weekly basis.
3. Due to potential for fresh water contamination, chromates are banned from Federal leases.
4. Surface casing shall be set into a geologically competent formation at or near 500 feet.

## CONDITIONS OF APPROVAL

1. Existing roads and trails will be upgraded only to allow for adequate drainage measures. Any damage caused to roads during the project will be repaired.
2. Prior to construction of the new access road, an on-site analysis will be conducted to flag the exact route and establish design criteria. The route will be located as identified under proposed action in the EA.
3. Design criteria will be established to meet requirements of BLM's class III road system. Any road will have a maximum travel surface of 18 feet. Total disturbed width will be limited to 25 feet.
4. Dust control on all portions of the route will be required during project construction and during well drilling and may be necessary later if the project reaches economic production.
5. During inclement weather when activity could result in deep rutting of the roads (6 inches or more), or excessive disturbance of the right-of-way, a stop work order may be verbally issued by the Area Manager with a follow-up written order. An authorization to resume work will be required.
6. Flow measurements are to be taken at the head of each produced water discharge line and at each junction and/or discharge point, whether for surface or underground discharge. These will be recorded every 72 hours or more often when necessary, and this data summarized and reported monthly to BLM-PRRA. Any incidence of flow data discrepancy is to be reported to the State Division of Environmental Health and the Price River Resource Area within 48 hours, and resolved within 12 hours of discovery.
7. Summarized results of all analyses of produced water will be sent to the Price River Resource Area, preferably on a monthly basis initially. This is to include baseline data already gathered.
8. Plans will be formulated for long term monitoring of aquifers and springs in the area of proposed development to assess any cumulative impacts that may trigger the need for an Environmental Impact Statement.
9. The dirt contractor will be provided with an approved copy of the surface use plan.



## CONDITIONS OF APPROVAL

Original 13 COA's are all carried forward into this Addendum.

Applicable Wildlife COA's from EA Ut-066-91-21:

1. In order to protect sage grouse nesting/brood rearing, wintering mule deer and elk: exploration, drilling and other development activity will be allowed only during the period from 7-1 through 11-1.
2. No surface occupancy or other surface disturbance within 330 feet of the center line of perennial streams or within 660 feet of springs.
3. Participate in development and implementation of an offsite mitigation plan to minimize long term impacts to wildlife.

(Added to original COA's in EA Ut-066-91-21:

PG&ER will enter into a Cooperative Agreement with the BLM and the Utah Division of Wildlife Resources to participate in a mitigation fund set up to complete wildlife habitat enhancement projects to compensate for project related wildlife impacts.)

### C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

Building Location- Contact the Resource Area, Natural Resource Protection Specialist at least 48 hours prior to commencing construction of location.

Spud- The spud date will be reported to the Resource Area Office 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the District Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval from the Assistant District Manager. "Sundry Notices and Reports on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Authorized Officer. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the Resource Area in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the Area Manager is to be notified.

First Production- Should the well be successfully completed for production, the Assistant District Manager, Minerals Division will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed on production.

A first production conference will be scheduled as soon as production testing begins and hydrocarbons reach the surface. This conference should be coordinated through the Resource Area Office.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings and /or samples) will be submitted when requested by the Assistant District Manager.

Venting/Flaring of Gas- NTL-4A allows venting/flaring of gas during the initial well evaluation period not to exceed 30 days or 50 MMcf. Venting/flaring beyond the initial test period threshold must be approved by the District Office.

Produced Water- Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the Assistant District Manager for approval pursuant to NTL-2B.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the Assistant District Manager for off-lease measurement, off-lease storage or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the BLM, Moab District Office prior to initiating plugging operations. Table 1 of this document provides the after-hours phone numbers of personnel who are authorized to give plugging instructions.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the Assistant District Manager, Minerals Division within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Manager or his representative, or the appropriate surface managing agency.

## TABLE 1

### NOTIFICATIONS

Notify Don Stephens, Dean Nyffeler or Mike Kaminski of the Price River Resource Area in Price, Utah, at (801) 637-4584 for the following:

2 days prior to commencement of dirt work, construction or reclamation;

1 day prior to spudding;

50 feet prior to reaching surface and intermediate casing depths;

3 hours prior to testing BOPE;

If the person at the above number cannot be reached, notify the Moab District Office at (801) 259-6111. If unsuccessful, notify one of the people listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab District Office, Branch of Fluid Minerals at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Dale Manchester, Petroleum Engineer	Office: (801) 259-6111
	Home: (801) 259-6239

Eric Jones, Petroleum Engineer	Office: (801) 259-6111
	Home: (801) 259-2214

If unable to reach the above individuals, please call:

Lynn Jackson,	Office: (801) 259-6111
Chief, Branch of Fluid Minerals	Home: (801) 259-7990

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: PG & E 43-007-30174

WELL NAME: FEDERAL 16-14

Section 14 Township 12S Range 10E County CARBON

Drilling Contractor ADCOR

Rig # 36

SPUDDED: Date 10/6/92

Time

How DRY HOLE

CONFIDENTIAL

Drilling will commence 10/12/92

Reported by RICHARD MILLER

Telephone # 1-637-1835

Date 10/8/92 SIGNED JLT

## ENTITY ACTION FORM - FORM 6

ADDRESS 6688 N. Central ExpresswayDallas, TX 75206-3922

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	99999	11435	43-007-30174	Federal #16-14	SE SE	14	12S	10E	Carbon	10/13/92	10/13/92
WELL 1 COMMENTS: <u>Entity added 10-28-92 for</u> PG&E Resources spud the above well on 10/13/92 at 5:30 p.m.											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

## ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

REGISTERED

OCT 26 1992

DIVISION OF  
OIL GAS & MININGAva Hurst  
SignatureRegulatory Affairs 10/22/92  
Title DatePhone No. (214) 750-3958

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

REC'D MDO OCT 19 1992

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other Coalbed Methane	5. Lease Designation and Serial No. UTU-65949
2. Name of Operator PG&E Resources Company	6. If Indian, Allottee or Tribe Name N/A
3. Address and Telephone No. 6688 N. Central Expressway, Dallas, Texas 75206-3922	7. If Unit or CA, Agreement Designation N/A
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1124' FSL & 964' FEL SE SE Sec. 14, T12S-R10E	8. Well Name and No. Federal #16-14
	9. API Well No.
	10. Field and Pool, or Exploratory Area
	11. County or Parish, State Carbon, Utah

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other Spud/Set Surface Casing
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

PG&E Resources Company spud the above referenced well on 10/13/92 at 5:30 p.m. On 10/15/92 ran 8 5/8" casing to 480'.

RECEIVED

NOV 09 1992

DIVISION OF  
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed Ava Hurst Title Production Administrator

Date 10/16/92

(This space for Federal or State office use)

Approved by [Signature]

Title Branch of Fluid Minerals

Date OCT 20 1992

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See Instruction on Reverse Side





April 20, 1993

RECEIVED

APR 21 1993

DIVISION OF  
OIL GAS & MINING

State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

Attention: Mr. Frank Mathews

RE: Castlegate CBM Project  
Carbon County, Utah

Gentlemen:

Attached is an original and one (1) copy of Form 9 "Sundry Notices and Reports on Wells," completion procedure and a schedule of the wells for the referenced project.

If you have any questions or need further information, please contact the undersigned at 214/706-3640.

Very truly yours,

Cindy Keister  
Regulatory Analyst

CRK/ck

Attachments

STA OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT— for such proposals.

<b>1. Type of Well</b> <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other (specify)		<b>6. Lease Designation and Serial Number</b> See Attached Schedule "A"
<b>2. Name of Operator</b> PG&E Resources Company		<b>7. Indian Allottee or Tribe Name</b> NA
<b>3. Address of Operator</b> 6688 N. Central Expwy., Dallas, TX 75206		<b>8. Unit or Communitization Agreement</b> NA
<b>4. Telephone Number</b> 214/750-3800		<b>9. Well Name and Number</b> See Attached Schedule "A"
<b>5. Location of Well</b> Footage : See Attached Schedule "A" CO, Sec, T., R., M. : <i>Federal 16-14 Sec 14, T12S, R10E</i> <i>43-007-30174</i> County : Carbon State : UTAH		<b>10. API Well Number</b> See Attached Schedule "A"
<b>11. Field and Pool, or Wildcat</b> Wildcat		<b>12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</b>

**NOTICE OF INTENT**  
(Submit in Duplicate)

- |   |   |
|---|---|
| <input type="checkbox"/> Abandonment                            | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair                          | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans                        | <input type="checkbox"/> Recompletion         |
| <input type="checkbox"/> Conversion to Injection                | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Fracture Treat                         | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion                    | <input type="checkbox"/> Water Shut-Off       |
| <input checked="" type="checkbox"/> Other <u>Complete Wells</u> |   |

Approximate Date Work Will Start 05/01/93

**SUBSEQUENT REPORT**  
(Submit Original Form Only)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment *           | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____             |   |

Date of Work Completion \_\_\_\_\_

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

\* Must be accompanied by a cement verification report.

**13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS** (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company requests approval for the attached Completion Procedure for the wells listed on Schedule "A". Daily reports will be furnished when completion operations commence.

**RECEIVED**

APR 21 1993

DIVISION OF  
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Name & Signature

(State Use Only)

*Cindy Keister*  
Cindy Keister

Title Regulatory Analyst Date 04/20/93

CASTLEGATE

SCHEDULE 'A'

WELL NAME	LEASE SERIAL NO.	API NUMBER	Location	Qtr Sec.	Sec	Twncshp	Range	County
State 2-16	UTU-65949	43-007-30133	780' FNL & 1971' FEL	NE NE	16	12S	10E	Carbon
Federal 4-13	UTU-65949	43-007-30126	1174' FNL & 1168' FWL	NW NW	13	12S	10E	Carbon
Federal 4-14	UTU-65949	43-007-30138	660' FNL & 450' FWL	NW NW	15	12S	10E	Carbon
Jensen 5-10	433396	43-007-30162	2065' FNL & 570' FWL	SW NW	10	12S	10E	Carbon
Jensen 7-15	FEE	43-007-30165	1650' FNL & 1650' FEL	SW NE	15	12S	10E	Carbon
Jensen 9-10	433396	43-007-30159	2559' FSL & 909' FEL	NE SE	10	12S	10E	Carbon
State 9-16	UTU-65949	43-007-30132	1993' FSL & 702' FEL	NE SE	16	12S	10E	Carbon
Shimmin Trust 10-11	FEE	43-007-30167	1999' FSL & 2006' FEL	NW SE	11	12S	10E	Carbon
Jensen 11-10	433396	43-007-30164	1735' FWL & 1461' FSL	NE SW	10	12S	10E	Carbon
Shimmin Trust 11-11	FEE	43-007-30166	2313' FSL & 1501' FWL	NE SW	11	12S	10E	Carbon
Jensen 11-15	FEE	43-007-30175	1896' FSL & 1709' FWL	NE SW	15	12S	10E	Carbon
Shimmin Trust 12-12	FEE	43-007-30168	2340' FSL & 1033' FWL	NW SW	12	12S	10E	Carbon
Shimmin Trust 14-12	FEE	43-007-30169	721' FSL & 2047' FWL	SE SW	12	12S	10E	Carbon
Federal 14-13	UTU-65949	43-007-30177	914' FSL & 1677' FWL	SE SW	13	12S	10E	Carbon
Federal 14-14	UTU-65949	43-007-30173	990' FSL & 1649' FWL	SE SW	14	12S	10E	Carbon
Jensen 16-9	FEE	43-007-30163	1198' FSL & 1059' FEL	SE SE	9	12S	10E	Carbon
Jensen 16-10	FEE	43-007-30161	330' FSL & 330' FEL	SE SE	10	12S	10E	Carbon
Federal 16-14	UTU-65949	43-007-30174	1124' FSL & 964' FEL	SE SE	14	12S	10E	Carbon
Federal 16-15	UTU-65949	43-007-30176	1091' FSL & 1043' FEL	SE SE	15	12S	10E	Carbon

APRIL 20, 1993

**CASTLEGATE PROJECT**  
**TYPICAL PRODUCING WELL COMPLETION PROCEDURE**  
**(5-1/2", 17#, N-80 CSG)**

1. MIRU WELL SERVICE UNIT.
2. GIH W/RB ON 2-7/8" TBG & D.O. DV TOOL.
3. CIRC HOLE CLEAN - TEST CSG TO 5000 PSI.
4. RUN CBL (IF REQUIRED).
5. PERFORATE LOWER STAR POINT COAL SECTION (TYPICALLY AROUND 4750' FOR ABOUT 60' OF GROSS INTERVAL, APPROX 20-30 HOLES).
6. TREAT LOWER COAL SEAM PERFS DOWN CSG W/1500 GALS 15% FE ACID W/ BALL SEALERS (TO OPEN ALL PERFS).
7. TREAT LOWER COAL SEAM PERFS DOWN CSG W/APPROX 60,000 GALS OF CMHEC CLEAN GEL SYSTEM W/90,000# 20/40 SD & 35,000# OF 100 MESH SD. EXPECT TO TREAT @ 60 BPM X 6000 PSI.
8. FORCE CLOSE FRAC.
9. FLOWBACK LOAD WATER.
10. SET RBP ON WL OVER LOWER COAL SEAM INTERVAL.
11. PERFORATE & TREAT UPPER COAL SEAM INTERVAL (TYPICALLY 4450' +/- SPREAD OVER 200'-300', 35 TOTAL HOLES).
12. DO BD ACID JOB AND FRAC AS BEFORE ON THE LOWER INTERVAL.
13. FORCE CLOSE FRACTURE.
14. FLOWBACK FRAC LOAD UP THE CSG.
15. RETRIEVE RBP W/TBG.
16. RUN MOYNO PRODUCTION PUMPING EQUIPMENT ON 2-7/8" N-80 TBG.
17. COMMENCE DE-WATERING OPERATIONS.

## WELL HISTORY

16-14 Federal  
Castlegate Area  
Carbon County, Utah

09-30-92 Rec'd approved APD, began bldg road & loc.

10-01-92 Bldg road & loc.

10-02-92 Bldg road & reserve pit.

10-03-92 Bldg location & road.

10-04-92 Bldg location & road.

10-05-92 MI & drld conductor hole to 30'. Ran 14" conductor.

10-06-92 Cmt'd conductor to 39' GL (corrected depth), drl RH & MH.

10-07-92  
to  
10-10-92 WO Adcor Rig #36.

10-11-92 MI Adcor Rig #36.

10-12-92 MIRU Adcor Rig #36.

10-13-92 RU Adcor Rig #36.

10-14-92 Drlg 156', day 1, 117'/11 hrs, MW 8.3., Visc 26, WL N/C. RU & spud @ 5:30pm 10-13-92. CC \$68,197.

10-15-92 Depth 480', run 8-5/8" csg, day 2, 324'/21 hrs, MW 8.4, Visc 27, WL N/C. Drl to 480', C&C, TOH, rng 8-5/8" surf csg, srvy .25° @ 253'. CC \$74,601.

10-16-92 Drlg 570', day 3, 96'/2.5 hrs, MW 8.4, Visc 27, WL N/C. Set 8-5/8" @ 474' KB & cmt'd w/ 350 sx class G. Circ cmt to surf, NU & tst BOPE, tst csg to 1500#, TIH & drl out cmt. CC \$92,749.

10-17-92 Drlg 1348', day 4, 778'/21 hrs, MW 8.4, Visc 28, WL

## WELL HISTORY

16-14 Federal  
Castlegate Area  
Carbon County, Utah

N/C. Trip for BHA. Srvy 0.5 @  
550' & 1159'.

10-18-92	Drlg 2272', day 5, 924'/22.5 hrs, MW 8.4, Visc 29, WL N/C. Srvy 1° @ 1606' & 1.5° @ 2100'.
10-19-92	Drlg 3075', day 6, 803'/23.5 hrs, MW 8.4, Visc 29, WL N/C. Srvy 3° @ 2597'. CC \$115,605.
10-20-92	Drlg 3464', day 7, 389'/18.5 hrs, MW 8.6, Visc 30, WL 21.6. Trip for bit, srvy 3.75° @ 3151'. CC \$125,249.
10-21-92	Drlg 3900', day 8, 436'/23.5 hrs, MW 8.9, Visc 29, WL 16.1. Srvy 5.25° @ 3646'. CC \$130,755.



September 17, 1993

RECEIVED

SEP 20 1993

DIVISION OF  
OIL, GAS & MINING

Bureau of Land Management  
Vernal District Office  
170 South 500 East  
Vernal, UT 84078

RE: Federal 16-14  
Section 14-T12S-R10E  
Carbon County, Utah

Gentlemen:

Attached is an original and two (2) copies of Form 3160-4 "Well Completion or Recompletion Report and Log" for the referenced well.

If you have any questions or need further information, please contact the undersigned at 214/706-3640.

Very truly yours,

Cindy R. Keister  
Sr. Regulatory Analyst

CRK/ck

Attachments

cc: Utah Department of Natural Resources  
Regulatory File  
Central Files



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL:		OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	DRY <input type="checkbox"/>	Other <input type="checkbox"/>										
b. TYPE OF COMPLETION:		NEW WELL <input checked="" type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>	DIFF. RESVR <input type="checkbox"/>	Other <input type="checkbox"/>								
2. NAME OF OPERATOR PG&E Resources Company															
3. ADDRESS OF OPERATOR 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206															
4. LOCATION OF (Report location clearly and in accordance with any State requirements)* At surface 1124' FSL & 964' FEL SE/4 SE/4 At top prod. interval reported below Same At total depth Same															
14. PERMIT NO. 43-007-30174				DATE ISSUED 09/28/92		12. COUNTY OR PARISH Carbon		13. STATE Utah							
15. DATE SPUDDED 10/13/92		16. DATE T.D. REACHED 10/22/92		17. DATE COMPL. (Ready to prod.) 08/28/93		18. ELEVATIONS (DB, RKB, RT, GR, ETC.)* 7672' RKB		19. ELEV. CASING HEAD							
20. TOTAL DEPTH, MD & TVD 4175'		21. PLUG, BACK T.D., MD & TVD 4109'		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY ROTARY TOOLS X		CABLE TOOLS							
24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)* 3502' - 3842' Blackhawk 3969' - 4029' Kenilworth (MVOCL)								25. WAS DIRECTIONAL SURVEY MADE No							
26. TYPE ELECTRIC AND OTHER LOGS RUN Spectral Density/Spectral Density Quick Look 11-17-92								27. WAS WELL CORED No							
28. CASING RECORD (Report all strings set in well)															
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED					
8-5/8"		24#		431'		12-1/4"		350sx Class "G" w/additives		0					
5-1/2"		17#		4172'		7-7/8"		265sx 50/50 Poz w/additives		0					
				DV Tool @3030'				300sx Class "G" w/additives +							
								50sx Class "G" Neat							
29. LINER RECORD										30. TUBING RECORD					
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*		SCREEN (MD)		SIZE		DEPTH SET (MD)		PACKER SET (MD)	
										2-3/8"		3452'		NA	
31. PERFORATION RECORD (Interval, size and number)										32. ACID, SHOT, FRACTURE, CEMENT					
3502' - 3842'		0.45"		30 Holes		3502' - 3842'		2000 gals 7-1/2% HCL + 55000 gals.							
3969' - 4029'		0.45"		16 Holes				XL CMHEC gel + 36250# 100 mesh							
								sd + 71800# 16/30 sd							
								See attached							
33.* PRODUCTION															
DATE FIRST PRODUCTION 08/28/93		PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump) Hyland Model 200 Progressive Cavity Pump						WELL STATUS (Producing or shut-in) Shut-In							
DATE OF TEST 08/30/93		HOURS TESTED 24		CHOKE SIZE NA		PROD'N. FOR TEST PERIOD OIL--BBL. 0 GAS--MCF. 28 WATER--BBL. 992		GAS-OIL RATIO NA							
FLOW. TUBING PRESS. NA		CASING PRESSURE 110		CALCULATED 24-HOUR RATE OIL--BBL. 0 GAS--MCF. 28 WATER--BBL. 992		OIL GRAVITY-API (CORR.) NA									
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Well currently shut-in waiting on completion of central processing facility.										TEST WITNESSED BY Mike McMican					
35. LIST OF ATTACHMENTS															
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records															
SIGNED		TITLE Sr. Regulatory Analyst						DATE		09/18/1993					

\*(See Instructions and Spaces For Additional Data on Reverse Side)



37. SUMMARY OF POROUS ZONES: (show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Blackhawk	3170'	3841'	Natural gas.	Price River Sandstone		2400'
Kenilworth	3842'	4067'	Natural gas.	Castlegate Sandstone		2820'
				Blackhawk Formation		3170'
				Kenilworth Sandstone		3842'
				Aberdeen Sandstone		4068'

32.	<u>Depth Interval (MD)</u>	<u>Amount and Kind of Material Used</u>
	3969' - 4029'	2500 gals 7.5% FE Acid + 25000 gals XL CMHEC gel + 37000# 100 mesh sd + 69000# 16/30 sd + 20000# 16/30 curable resin coated sd.



December 21, 1993

DEC 27 1993  
DIVISION OF  
OIL, GAS & MINING

Bureau of Land Management  
Moab District Office  
P. O. Box 970.  
82 E. Dogwood  
Moab, UT 84532

RE: Federal 4-13, 4-15, 7-9,  
14-13, 14-14, 16-14 & 16-15  
Castlegate CBM Project  
Sundries For NTL-2B  
Carbon County, Utah

Gentlemen:

Attached is an original and two (2) copies of Form 3160-5 "Sundry Notices and Reports on Wells," for the referenced wells.

If you have any questions or need further information, please contact the undersigned at 214/706-3640.

Very truly yours,

Cindy R. Keister  
Sr. Regulatory Analyst

CRK/ck

Attachments

cc: Utah Division of Oil, Gas & Mining  
Central File  
Regulatory File



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT" for such proposals

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

5. Lease Designation and Serial No.

UTU-65949

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

NA

8. Well Name and No.

Federal 16-14

9. API Well No.

43-007-30174

10. Field and Pool, or Exploratory Area

Wildcat

11. County or Parish, State

Carbon County, Utah

**SUBMIT IN TRIPLICATE**

1. Type of Well

☐ Oil  
Well

☒ Gas  
Well

☐ Other

2. Name of Operator

PG&E Resources Company

3. Address and Telephone No.

6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

214/750-3800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1124' FSL & 964' FEL  
SE/4 SE/4 Sec. 14-T12S-R10E

12.

**CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

**TYPE OF SUBMISSION**

- ☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment

**TYPE OF ACTION**

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other NTL-2B  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

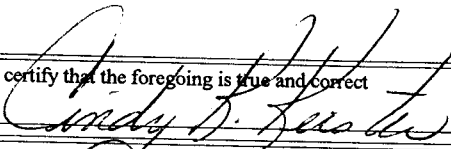
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log from.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

PG&E Resources Company requests approval to dispose of produced water from the referenced well into off-lease injection well(s) located in Section 10 and 11 of T12S-R10E, Carbon County, Utah. The produced water will flow via a gathering line to a central processing facility (CPF) where it will be consolidated with other produced water from the field prior to entering the injection header for disposal into one of the four injection wells. A copy of the State of Utah, UIC Permit is included for your review.

14. I hereby certify that the foregoing is true and correct

Signed



Title

Sr. Regulatory Analyst

Date

12/20/1993

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

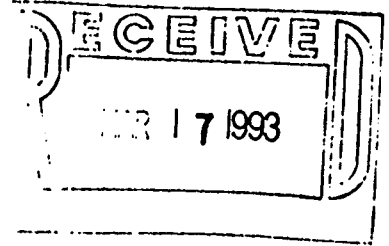


Norman H. Bangert  
Governor  
Dee C. Hansen  
Executive Director  
Dianne R. Nielson, Ph.D.  
Division Director

# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340



March 12, 1993

PG&E Resources Company  
6688 North Central Expressway  
Dallas Texas 75206

Gentlemen:

Re: Conversion of the Jensen 16-10, Jensen 9-10, Shimmin Trust 11-11, and Shimmin Trust 10-11 wells located in Sections 10 and 11, Township 12 South, Range 10 East, Carbon County, Utah, to Water Disposal Wells

In accordance with Utah Admin. R. 649-5-3-3, administrative approval for conversion of the referenced wells to Class II injection wells is granted.

The following actions are necessary to fully comply with this approval:

1. Compliance with the UIC requirements for operation, maintenance and reporting for Class II injection wells.
2. Conformance with all conditions of the submitted applications.

If you have any questions regarding this approval or the necessary requirements, please contact this office.

Sincerely,

R.J. Firth  
Associate Director, Oil and Gas

cc: BLM, Price  
R.J. Firth  
WUI229

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT -" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

PG&E Resources Company

3. Address and Telephone No.

6688 N. Central Expwy., Suite 1000, Dallas, TX 75206 214/750-3800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1124' FSL & 964' FEL  
SE/4 SE/4 Sec. 14-T12S-R10E

5. Lease Designation and Serial No.

UTU-65949

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

NA

8. Well Name and No.

Federal 16-14

9. API Well No.

43-007-30174

10. Field and Pool, or Exploratory Area

Wildcat

11. County or Parish, State

Carbon County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other First Sales  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log from.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

PG&E Resources Company turned the referenced well into the gas sales line on March 7, 1994. The well is producing at an estimated rate of 39 MCFD & 247 BWPD on pump.

14. I hereby certify that the foregoing is true and correct

Signed

*Cindy D. Reister*

Title Sr. Regulatory Analyst

Date 03/14/1994

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number

UTU-65949

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

CA # UTU-73772

8. Well Name and Number:

Federal #16-14

9. API Well Number:

43-007-30174

10. Field and Pool, or Wildcat

Castlegate

### SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

1. Type of Well: OIL ☐ GAS ☐ OTHER: Coalbed Methane

2. Name of Operator

Anadarko Petroleum Corporation

3. Address and Telephone Number.

17001 Northchase Dr., Houston, Texas 77060 (281) 875-1101

4. Location of Well

Footages: SE SE 1124' FSL &amp; 964' FEL

County: Carbon

QQ, Sec., T., R., M.: Sec. 14 T12S-R10E

State: Utah

### 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

#### NOTICE OF INTENT (Submit in Duplicate)

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Abandon        | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Repair Casing             | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans           | <input type="checkbox"/> Recomplete           |
| <input type="checkbox"/> Convert to Injection      | <input type="checkbox"/> Perforate            |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion       | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____               |   |

Approximate date work will start Early Spring

#### SUBSEQUENT REPORT (Submit Original Form Only)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandon*                  | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Repair Casing             | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans           | <input type="checkbox"/> Perforate            |
| <input type="checkbox"/> Convert to Injection      | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____               |   |

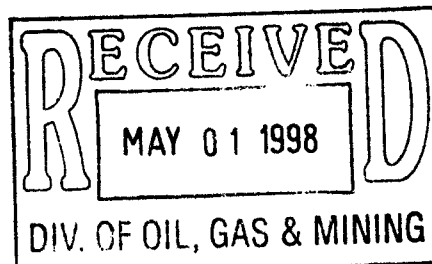
Date of work completion \_\_\_\_\_

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

\* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please see attached "Well Diagram" for all wellbore information and geological markers.



13.

Name &amp; Signature

Title

Shad Frazier  
Production Engineer

Date 02/17/98

(This space for State use only)

Accepted by the State  
of Utah Division of  
Oil, Gas and Mining

Date: 5-14-98

By:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well  
☐ Oil Well ☐ Gas Well ☒ Other Coalbed Methane

2. Name of Operator

Anadarko Petroleum Corporation

3. Address and Telephone No.

17001 Northchase Dr., Houston, TX 77060 (281) 875-1101

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SE SE 1124' FSL & 964' FEL  
Sec. 14 T12S-R10E

5. Lease Designation and Serial No.

UTU-65949

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Federal #16-14

9. API Well No.

43-007-30174

10. Field and Pool, or Exploratory Area

Castlegate

11. County or Parish, State

Carbon County, Utah

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

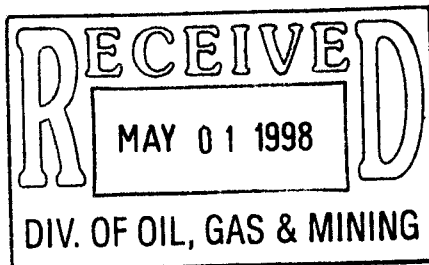
- ☒ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☐ Other

- ☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

See attached document for plugging procedures in accordance to plugging guidelines and the "Wellbore Diagram" for all wellbore information and geological markers.



RECEIVED  
BUREAU OF LAND MGMT  
MAY 19 PM 2:31

14. I hereby certify that the foregoing is true and correct

Signed

*Shad Frazier*

Title

Shad Frazier  
Production Engineer

Date 02/17/98

(This space for Federal or State office use)

Approved by

*[Signature]*

Title

Assistant Field Manager,  
Resource Management

Date

4/22/98

Conditions of approval, if any:

CONDITIONS OF APPROVAL ATTACHED



STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

### SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

1. Type of Well: OIL ☐ GAS ☒ OTHER: METHANE

2. Name of Operator

Anadarko Petroleum Corporation

3. Address and Telephone Number.

17001 Northchase Dr., Houston, Texas 77060

4. Location of Well

Footages: 1124' FSL & 964' FEL

QQ.Sec., T., R., M.: SE SE Sec. 14-T12S-R10E

5. Lease Designation and Serial Number

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:

Federal 16-14

9. API Well Number:

43-007-30174

10. Field and Pool, or Wildcat

Castlegate Field

County: Carbon

State: Utah

### CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

11.

#### NOTICE OF INTENT (Submit in Duplicate)

☐ Abandon

☐ Repair Casing

☐ Change of Plans

☐ Convert to Injection

☐ Fracture Treat or Acidize

☐ Multiple Completion

☐ Other \_\_\_\_\_

☐ New Construction

☐ Pull or Alter Casing

☐ Recomplete

☐ Reperforate

☐ Vent or Flare

☐ Water Shut-Off

#### SUBSEQUENT REPORT (Submit Original Form Only)

☒ Abandon\*

☐ Repair Casing

☐ Change of Plans

☐ Convert to Injection

☐ Fracture Treat or Acidize

☐ Other \_\_\_\_\_

☐ New Construction

☐ Pull or Alter Casing

☐ Reperforate

☐ Vent or Flare

☐ Water Shut-Off

Date of work completion 06/30/98

Report results of **Multiple Completions and Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

\* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

SEE ATTACHED WELLBORE DIAGRAM AND DETAILED FIELD REPORT.

UNABLE TO SET LOWER CEMENT PLUG AT 50' ABOVE TOP PERFORATION. PLUG WAS SET AS IN AGREEMENT WITH THE STATE OF UTAH, DIVISION OF OIL AND GAS PERMISSION.

13.

Shad Erazier

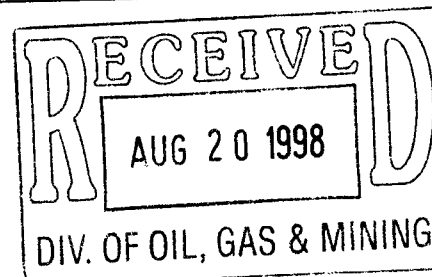
Name & Signature

Title Engineer

Date 08/12/98

(This space for State use only)

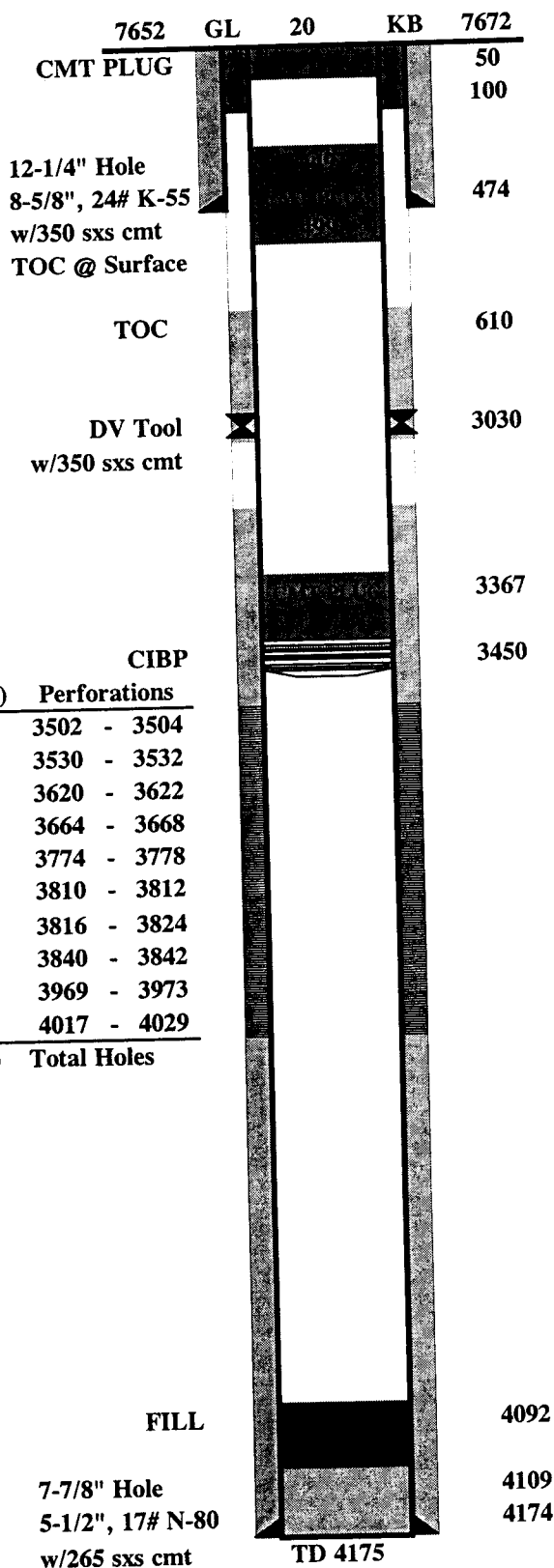
(See Instructions on Reverse Side)



# FEDERAL #16-14

SE SE 1124' FSL & 964' FEL: SEC 14 T12S-R10E  
API NO. 43-007-30174

SPUD RIG OFF  
SURFACE 10/13/1992 10/16/1992  
PRODUCTION 10/17/1992 10/23/1992



## WELL WORK HISTORY

08/06/1993 FRAC 3969-4029 w/69M GAL CMHEC, 37M# 100  
MESH, 69M# 16/30, 20M# 16/30 RC  
08/12/1993 FRAC 3502-3842 w/64M GAL CMHEC, 36M# 100  
MESH, 72M# 16/30. NO RC SAND  
08/28/1993 POP w/ HPC 200 PMP  
11/11/1993 FLUSHED ROTOR & STATOR  
12/02/1993 INSTALL HPC 120 PMP, TFF @ 4058 & CO  
05/24/1994 PARTED POLISH ROD  
04/04/1995 PMP FAILURE, BRKN SWAGE, TIGHT SPOT,  
NEW BMW 100-5200, TFF @ 4067 & CO  
08/28/1995 HOLE IN 3-1/2" JT; TUBING BACKED OFF

NOTES: DO FC 7/93; TIGHT SPOT @ 4044

## TUBING BREAKDOWN

2-7/8"	JTS
TA	
2-7/8"	JTS
3-1/2"	JTS
SN	
TAG BAR	
2-7/8"	JTS
NC	
EOT	

## ROD BREAKDOWN

PONIES	
1"	
7/8"	
3/4"	
1"	
1.5"	
PUMP	

## DEVIATION ANGLE

253	0.3
550	0.5
1159	0.5
1606	1
2100	1.5
2597	3
3151	3.8
3646	5.3
4150	6

## FORMATION

FORMATION	TOP
PRICE RIVER	2400
CASTLEGATE	2820
BLACKHAWK	3170
KENILWORTH	3842
ABERDEEN	4068
SPRING CANYON	

LAST REVISED: 07/21/1998



## COIL TUBING JOB LOG 4191

6-30-78

TICKET NO

402664

**CUSTOMER**

WELL NO.

**LEASE**

**JOB TYPE**

Answer Key

16-14

Federal

P 3A

### DESCRIPTION OF JOB

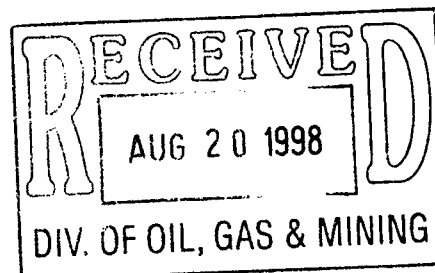
[illegible]



August 13, 1998

State of Utah  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84414-5801

Re: State Form 9  
Castlegate Field  
Carbon County, Utah



Gentlemen:

Please find enclosed, Sundry Notices and Reports on Wells (Form 9) outlining the plugging and abandoning procedures performed for the following wells:

SHIMMIN TRUST 1 <i>fr SGW to PA</i>	JENSEN 11-15 <i>fr SGW to PA</i>
SHIMMIN TRUST 2 " " " "	JENSEN 16-9 " " " "
SHIMMIN TRUST 3 " " " "	JENSEN 16-10 " " " "
SHIMMIN TRUST 4 " " " "	FEDERAL 4-13 <i>fr SGW to PA</i>
SHIMMIN TRUST 5 " " " "	FEDERAL 4-15 " " " "
SHIMMIN TRUST 10-11 <i>fr WDW to PA</i>	FEDERAL 6-8 " " " "
SHIMMIN TRUST 11-11 <i>fr SGW to PA</i>	FEDERAL 7-9 " " " "
SHIMMIN TRUST 12-12 " " " "	FEDERAL 14-13 " " " "
SHIMMIN TRUST 14-12 " " " "	FEDERAL 14-14 " " " "
JENSEN 5-10 <i>fr SGW to PA</i>	FEDERAL 16-14 " " " "
JENSEN 7-15 " " " "	FEDERAL 16-15 " " " "
JENSEN 9-10 " " " "	STATE 2-16 <i>fr SGW to PA</i>
JENSEN 11-10 " " " "	STATE 9-16 " " " "

Should you have any questions or require additional information, please contact me at (281) 873-1276.

Best regards,

ANADARKO PETROLEUM CORPORATION

*Gail A. Rupert*

Gail A. Rupert  
Engineering Technician

Enclosures

cc: Bureau of Land Management  
Moab District Office  
P.O. Box 970  
Moab, Utah 84532

Bureau of Land Management  
Price River Resources Area  
900 North, 700 East  
Price, Utah 84501

GAR  
SMF  
TRC - Well File

### CONDITIONS OF APPROVAL

1. Notify Don Stephens fo the Price BLM office at (435) 636-3608 at least 24 hours prior to commencing plugging operations.
2. All wellbore volume between cement plugs shall be filled with bentonite gel of at least 9 pounds per gallon.
3. Upon finishing the plugging procedures, submit a subsequent report of abandonment (sundry notice) which details the work that was done.



Petroleum Corporation

## Plugging Procedure

Federal #16-14  
Sec. 14-T12S-R10E 1124' FSL & 964' FEL  
Carbon County, Utah

AFE: 501501  
WI: 100%  
API # 43-007-30174

### Purpose: Plug and Abandon Castlegate field

Surf: 8-5/8", 24# K-55  
Prod: 5-1/2", 17# N-80 ( Drift = 4.767" )

Wireline: Halliburton, Vernal 801-789-2550  
Cementing: Halliburton, Vernal 801-789-2550

### Procedure:

1. RDWH, NUBOP, BD casing pressure. MIRUWL. TIH W/ GR/JB to 3502. POH w/ GR/JB and pick up CIBP. Trip in hole and set CIBP @ +/- 3450 (Do not set in collars). RDWL and move to next location.
2. MIRU Coiled Tubing equipment and cement unit
3. Mix and pump a minimum of 5 sacks class G cement and spot on top of CIBP @ +/- 3450.
4. POH to bottom of surface casing @ 474 and spot a 50 ft. plug.
5. Pull up hole to within 50 ft of surface and spot 50 ft plug.
6. Cut production casing off and mix and pump a 100 ft cement plug between csg and prod csg. NDBOP.
7. Reclaim location and install 4 ft. dead man marker with lease name, number, company name, and legal description.

\* all displacement fluid will contain non-corrosive fluid.

Prepared: \_\_\_\_\_

Approved: \_\_\_\_\_

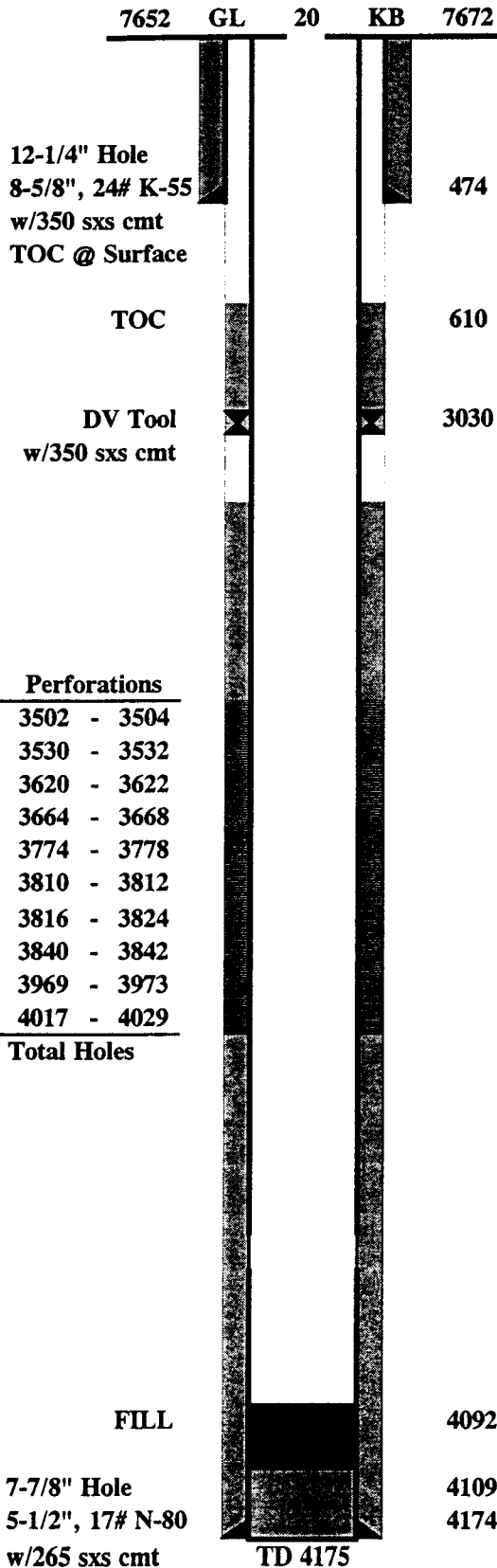
Castlegate plugging.doc

cc: Steve Pearson  
Alan O'Donnel  
Kendall Madden  
Shad Frazier  
Tom Rushing  
WF – Federal #16-14, Carbon County, Utah

# FEDERAL #16-14

SE SE 1124' FSL & 964' FEL: SEC 14 T12S-R10E  
API NO. 43-007-30174

SPUD RIG OFF  
SURFACE 10/13/1992 10/16/1992  
PRODUCTION 10/17/1992 10/23/1992



## WELL WORK HISTORY

08/06/1993 FRAC 3969-4029 w/69M GAL CMHEC, 37M# 100  
MESH, 69M# 16/30, 20M# 16/30 RC  
08/12/1993 FRAC 3502-3842 w/64M GAL CMHEC, 36M# 100  
MESH, 72M# 16/30. NO RC SAND  
08/28/1993 POP w/ HPC 200 PMP  
11/11/1993 FLUSHED ROTOR & STATOR  
12/02/1993 INSTALL HPC 120 PMP, TFF @ 4058 & CO  
05/24/1994 PARTED POLISH ROD  
04/04/1995 PMP FAILURE, BRKN SWAGE, TIGHT SPOT,  
NEW BMW 100-5200, TFF @ 4067 & CO  
08/28/1995 HOLE IN 3-1/2" JT; TUBING BACKED OFF

(Holes)	Perforations
(3)	3502 - 3504
(3)	3530 - 3532
(3)	3620 - 3622
(5)	3664 - 3668
(5)	3774 - 3778
(3)	3810 - 3812
(5)	3816 - 3824
(3)	3840 - 3842
(5)	3969 - 3973
(8)	4017 - 4029
(43)	Total Holes

NOTES: DO FC 7/93; TIGHT SPOT @ 4044

## TUBING BREAKDOWN

2-7/8"	JTS
TA	
2-7/8"	JTS
3-1/2"	JTS
SN	
TAG BAR	
2-7/8"	JTS
NC	
EOT	

## ROD BREAKDOWN

PONIES	
1"	
7/8"	
3/4"	
1"	
1.5"	
PUMP	

DEVIATION ANGLE	FORMATION	TOP
253 0.3	PRICE RIVER	2400
550 0.5	CASTLEGATE	2820
1159 0.5	BLACKHAWK	3170
1606 1	KENILWORTH	3842
2100 1.5	ABERDEEN	4068
2597 3	SPRING CANYON	
3151 3.8		
3646 5.3		
4150 6		

LAST REVISED: 03/13/1998